Burnout and Connectedness within the Special Constabulary: An analysis of the factors associated with volunteer job satisfaction, organisational commitment and retention

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Declaration

I declare that this work is my own and that this thesis has not been submitted for degree at another university.

Abstract

This thesis examines the underlying health impairment and motivational processes associated with volunteer retention, commitment and satisfaction within the Special Constabulary. Recognising the need to understand the impact of organisational-type variables on the volunteer experience, as well as the unique occupational hazards associated with police work, a theoretical model of volunteer retention within the Special Constabulary is developed based on the framework provided by the Job Demands-Resources (JD-R) model.

An online survey was distributed to volunteers serving at two Special Constabularies (*N*=272), with a follow-up survey sent out 6 months later (*N*=150). Secondary data analysis of volunteer workforce management data was also conducted to further understand the impact of operational duties on well-being and retention.

Strong support for the effect of various job characteristics within the health impairment and motivational pathways was found. Longitudinal analysis also confirmed the existence of causal and reciprocal relationships between burnout, connectedness and outcome measures.

The effects of burnout highlight the detrimental ways in which the demands of police work lead to the development of distancing behaviours. Burnout may therefore also have implications for the conceptual relationship between the Special Constabulary and the public. Volunteer work can however be motivational and offset the experience of burnout. Connectedness was influenced by organisational support and training, as well as on-the-job learning and the provision of challenging assignments. Importantly these findings suggest that rather than simply benefiting from the development of a favourable working environment, volunteers are also motivated to continue in their roles by the provision of job challenge. Overall these findings highlight the importance of job design in volunteerism. Providing volunteers with support, training and job challenge, whilst ensuring specials know what is expected of them and facilitating stronger working relationships with regular police officers has positive effect on retention.

Chapter 1 Introduction

1.1 Introduction

This chapter highlights the motivations underpinning the current study. It introduces the key theoretical perspectives and provides an overview of the structure of the thesis. Special Constabulary volunteerism represents a unique form of volunteering seldom addressed in empirical academic research. Whilst citizen involvement towards the coproduction of public safety has been a prominent feature of British police work, volunteer retention has been a longstanding issue within the Special Constabulary. Recognising the lack of research in this area, this thesis examines the impact of organisational and managerial factors and their influence upon the underlying health impairment and motivational processes associated with volunteer job satisfaction, commitment and retention. Recognising the theoretical link that the Special Constabulary serves between the police and the public, it also investigates how these processes influence the relationship between these volunteers and the public, as well the impact of different volunteer duties on well-being.

1.2 Research context and problem identification

Between August 2012 and January 2013, 44% of adults in England engaged in formal volunteering at least once in the previous 12 months, with 29% said that they did so at least once a month (NCVO, 2013). Furthermore, the Office for National Statistics (ONS) estimates the economic value of regular formal volunteering to stand at £23.9 billion, approximately 1.5% of gross domestic product (GDP; Foster, 2013). Whilst volunteering is perhaps the defining feature of the voluntary sector (Evans, 2011), there exists a misconception that this activity occurs exclusively within the non-profit sector (NCVO, 2011). For instance Low et al. (2007) found that in the UK, nearly one-quarter (23%) of all volunteering occurred within the public sector, yet despite this there are relatively few empirical studies examining this form of volunteering (Brudney and

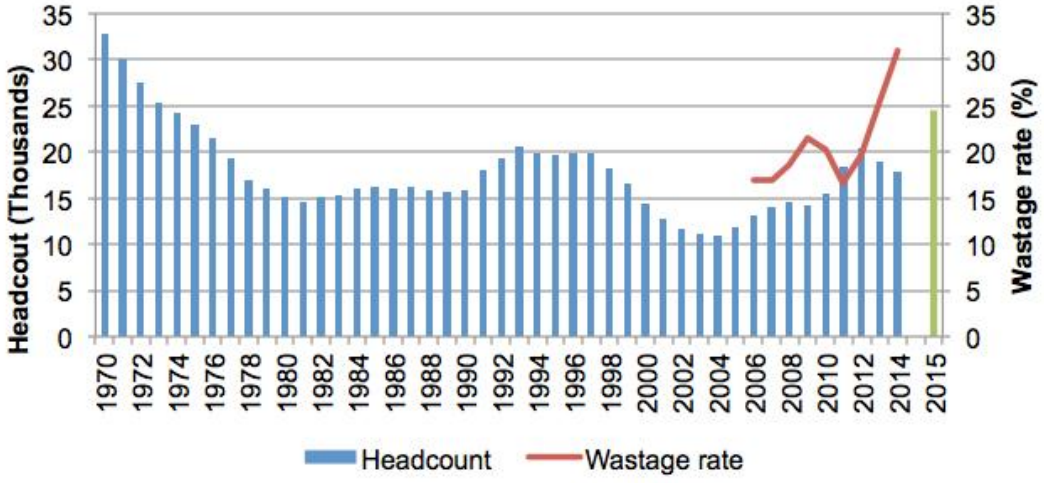
Kellough, 2000; Rochester et al. 2010). Public sector volunteering represents a specific form of unpaid work in which individuals take active responsibility for the coproduction of public services within government agencies (Brudney and England, 1993). Distinguishing between these different domains is important if we are to understand more about the volunteer labour market, as each sector is likely to appeal to different motives, require different resources and produce different outcomes (Musick and Wilson, 2008).

Citizen involvement in the coproduction of public safety pre-dates the formation of the modern police and can be traced back to the Statue of Winchester (1285) (Seth, 1961). The first legislation pertaining to the appointment of special constables appeared in 1820, nine years before the Metropolitan Police Act (1829) and 27 years before the County and Borough Police Act (1856) which heralded the beginning of the process by which the new police were slowly adopted (Emsley, 1996; Taylor, 1998). From their earliest inception, specials were seen as part of the incidental police to be called upon during times of tumult and riot (Radzinowicz, 1956). However, by 1891 individuals could be sworn into office in anticipation of disorder and by 1923 the Special Constabulary was established as a permanent police reserve (Leon, 1991).

The issue of declining retention rates within the Special Constabulary has been observable in Home Office headcount figures since the 1970s (figure 1.1) however, there has been little academic research to determine the factors driving this trend. In 1970, over 30,000 individuals volunteered as specials in England and Wales. By 1980 this number had more than halved, with this trend continuing until 2004 when there were fewer than 11,000 specials, the lowest number in recorded history. Between 2004 and 2012 there was a gradual increase in the overall headcount. Recruitment was aided by the Coalition Government's consultation paper calling for greater individual and voluntary sector involvement in policing, including the promotion of volunteer

opportunities within the Special Constabulary (Home Office, 2010: 25). With forces eager to expand their volunteer contingent, headcount figures increased between 2010 and 2012 from 15,015 to 20,343, suggesting the Special Constabulary may reach its 2015 national recruitment target (24,000). However, this growth proved to be unsustainable. In the year to March 2013 numbers fell by 6.5% to 19,011, a wastage rate[1] of 25%. Over the next 12-months to March 2014 there was a further decline by 6.4% to 17,789 with wastage rate increasing to 31.0%.

Figure 1.1: Special Constabulary headcount and wastage rates (1970-2014)



Sources: Bullock and Gunning (2007); Bullock (2008); Dhani and Kaiza, (2011); Dhani, (2012); Berman (2012); Berman and Dar (2013); Home Office (2014).

Despite the operational and financial costs associated with high volunteer turnover rates (Watson and Abzug, 2010), traditional volunteer management practices have tended to concentrate on recruitment rather than retention. The constant drive to recruit highlights the failure of voluntary organisations to successfully deal with retention issues through managerial practices (Brudney and Meijs, 2009). Whilst the development of favourable work environments has been shown to influence the retention of volunteers (Waikayi et al. 2012), few organisations devote as much

[1] The wastage rate is the number leaving the Special Constabulary as a proportion of the total service strength.

resource towards the management and retention of volunteers as they do with paid staff (Mook et al. 2007). Recognising this, Brudney and Meijs (2009) highlight the need to move away from traditional instrumental volunteer management practices to those that sustain engagement and encourage retention. However, the study of work has been synonymous with that of paid employment (Taylor, 2004) and relatively few studies have appraised the impact of the organisational context on retention, or examined how the perception of volunteer work affects individuals (Studer and von Schnurbein, 2013). Consequently the work environment factors associated with volunteer job satisfaction, commitment and retention remain a largely neglected area of volunteer research (Wilson, 2012).

1.3 Special constables

Special constables are volunteers who wear the same uniforms and conduct similar work to that of regular paid police officers (regulars). They also hold the same legal powers, making them warrant holders under the crown (Caless, 2010). Each applicant is screened and completes an initial 10-week training programme covering aspects of law, first aid and officer safety. Once completed, volunteers enter into a period in which they work to complete their student officer learning and assessment portfolio (SOLAP), in order to achieve independent status enabling solo patrolling. Specials may become involved in a variety of duties including reactive work, neighbourhood policing, policing public events, and assisting during national emergences (Mirrlees-Black and Byron, 1994; Caless, 2010). Perhaps most importantly the Special Constabulary requests that its specials volunteer a minimum of 16-hours per month. Special Constabulary volunteerism therefore has many attributes that set it apart from other forms of volunteering.

Traditional definitions of volunteering suggest that it is a form of freely chosen unpaid work, conducted without obligation or coercion for the benefit of others (Ellis Paine et

al. 2010a). Volunteering may also vary in terms of its formality (informal-formal), pre-planning (spontaneous-planned) and longevity or intensity (one-off, sporadic, regular) (Cnaan, et al. 1996; Penner, 2002; Snyder and Omoto, 2008). However, it has been suggest that such characteristics represent internal dimensions, rather than the conceptual boundaries of volunteering (Ellis Paine et al. 2010a). Here we are most concerned with the four core features, that it is freely chosen activity, unpaid, that involvement occurs without obligation and/or coercion and that it is conducted for the benefit of others.

Table 1.1: Key characteristics of a special constable

Volunteer	**Unpaid**
Part-time	**Is a warrant-holder under the Crown**
Has the **same powers** as a regular police officer	Undergoes a comprehensive training programme
Does many of the **same things** that a regular police officer would do	May have held other full- or part-time employment, or another full- or part-time occupation (such as student)
Agrees to **minimum of 4 hours** a week or **16 hours a month** on unpaid duty	Is drawn from the community
Understands local issues	Can identify the local leaders
Knows what concerns local people	Is enthusiastic, willing, committed, and possessed of a **strong sense of public duty** and **obligation**

(Source: Caless, 2010: 2)

Whilst Special Constabulary volunteerism is freely chosen and unpaid, specials are requested to commit a minimum of 16-hours per month (Caless, 2010) suggesting an element of obligation to their volunteering. There is evidence that for many officers, particularly those aged 18-21, the motivation to volunteer is driven by the desire to join the regular service (Gaston and Alexander, 2001). However, at an overall level more altruistic motives are also prominent (NPIA, 2010a). Whilst the same forms of volunteering may be driven by various motivational factors (Clary et al. 1998), the strong desire of many volunteers to join the regular service has the potential for this form of volunteering to develop a membership profile more similar to that of the regular police service.

Specials are provided with the same legal powers as regular police officers and are also exposed to the same organisational and operational hazards. Occupational stress is considered an unfortunate yet unavoidable aspect of police work (Hart and Cotton, 2003). Studies of US-based officers have demonstrated how police work can be associated with a broad range of issues including cardiovascular problems, burnout, suicidal ideation and problems with family life (Burke and Mikkelsen, 2007; Waters and Ussery, 2007; Hall et al. 2010). These issues can increase the levels of absenteeism, job dissatisfaction, poor work performance and result in officer attrition (Anderson et al. 2002). Whilst there is a vast body of US-focussed literature in this field (Abdollahi, 2002), there exists a paucity of research examining similar issues in the UK policing context (Houdmont et al. 2012).

Police organisations themselves are also seen as bureaucratic and stressful environments (Zhao et al. 2002). Research on the experiences of British police officers suggests that organisational factors are more frequently (Brown and Campbell, 1990) and severely experienced (Biggam et al. 1997; Collins and Gibb, 2003) than operational ones. Similar findings have been observed in both the US (Shane, 2010) and the Netherlands (Kop et al. 1999), highlighting the importance organisational and managerial issues within policing (Morash et al. 2006). The impact of these organisational-type factors is important because of the similarities identified between regular paid police officers and specials (table 1.1). Whilst specials conduct similar work to regulars they also do so within the same organisational context. Exposure to such organisational hazards might be responsible, in part, for the high attrition rates of volunteers within the Special Constabulary. However, the impact of these organisational and managerial issues, including their influence over concerns such as health and well-being and retention within the Special Constabulary remain largely unexamined. This represents a substantial gap in in the literature that this thesis will address.

Studies examining the factors associated with retention within the Special Constabulary would appear to support this proposition. Although personal factors such as work and study commitments are those most frequently cited by specials as reasons for leaving, volunteer work-related issues represent an important secondary category (Gaston and Alexander, 2001). Whilst this suggests scope for understanding more about the interaction between volunteers, the characteristics of their role and retention, most of the aforementioned studies were conducted without a strong theoretical framework, presenting only descriptive accounts of the factors influencing retention. With the empirical study of volunteering a relatively young discipline (Musick and Wilson, 2008), one means to overcome the lack of theoretically guided work within the Special Constabulary is to turn to the theoretical developments made within the study of paid work. With the similarities between paid and unpaid work most prevalent in relation to formal volunteering roles (Lewig et al. 2007), there is much potential for this perspective within the current context.

1.4 A new research direction

Research examining the organisational experiences of volunteers suggests similarities to paid employees in terms of how these two groups respond to their working environments (Metzer, 2003). Whilst we know that volunteers are vulnerable to issues such as burnout (Freudenberger, 1975), recent research has found utility in developing models from paid work to understand issues such as health and well-being, motivation and their impact on factors such as satisfaction, commitment and retention (Metzer, 2003; Lewig et al. 2007; Cox et al. 2010; Huynh et al. 2012a; 2012c). With such close similarities between paid police work and Special Constabulary volunteerism, theoretical models developed in paid work contexts, such as the Job Demands-Resource (JD-R) model (Demerouti et al. 2001; Bakker and Demerouti, 2007) may provide a window through which to gain a deeper understanding of the context specific factors influencing well-being and retention.

However, the organisational factors associated with volunteer well-being and motivation remain unexamined within a UK volunteer context or within police volunteerism. With such a heavy body of literature examining these issues within paid police work this represent a substantial gap in knowledge. The implications of issues such as volunteer burnout may extend beyond the individual's well-being, or retention rates, to the ways in which specials interact with civilians. Such relationships have been appraised in paid police contexts (Bakker and Heuven, 2006; Kop et al. 1999; Kop and Euwema, 2001), but not within volunteerism. Just as in paid police work, the ways in which volunteer officers interact with civilians may have a long-term impact on public trust and confidence in the police (Jackson and Sunshine, 2006). Therefore, in light of the theoretical link the Special Constabulary plays between the police and the public, it is vital to understand whether specials are vulnerable to the negative aspects of their volunteer work (e.g. burnout) as has been found in paid policing.

However, volunteer work is also known to have a positive influence on well-being (Thoits and Hewitt, 2001) and may improve employability (Menchik and Weisbrod, 1987; Ellis Paine et al. 2013). Although the positive aspects of work associated with mental wellness are increasingly studied within paid work (Seligman and Csikszentmihalyi, 2000), such approaches are rare within studies of the police. In the absence of pay, understanding the organisational-type factors that positively influence motivation and retention within higher risk volunteer environments, such as the Special Constabulary, represents an important yet unexamined aspect of this type of volunteering.

1.5 Contributions to theory

By building on work that highlights the importance of developing a favourable volunteer work environment (Waikayi et al. 2012), this thesis looks to implement the theoretical perspectives of models developed within the field of organisational psychology into the

volunteer context. Whilst there is already precedent for this technique, the experiences of UK-based volunteers, including police volunteers, have yet to be appraised.

This study makes a unique contribution to knowledge, being the first to examine the concept of volunteer burnout within the Special Constabulary. Policing is often associated with psychological complaints such as burnout that may influence not only job performance and absenteeism, but also the ways in which officers deal with members of the public. The implications for such effects are potentially substantial but have yet to be addressed.

Another contribution of this thesis to knowledge is the examination of organisational connectedness within European volunteer context. Whilst connectedness was conceptualised as a motivational construct within traditional helping-based volunteer roles, it remains unclear whether it is applicable to contexts in which volunteers and recipients may endure confrontational relationships. Similarly, the importance of connectedness within organisations in which there are well-documented issues in terms of the working relationships between volunteer and paid staff is little understood. Whilst studies examining the motivational processes within police work are rare, they have yet to be examined within a volunteer context such as the Special Constabulary. Therefore this thesis contributes towards voluntary sector knowledge by examining the motivational factors associated with retention in higher risk volunteering.

This thesis expands the boundary conditions of the theoretical propositions of the JD-R model into a UK police volunteer context. The JD-R model (Demerouti et al. 2001; Bakker and Demerouti, 2007) enables an examination of the underlying health impairment and motivational processes within volunteer work that might influence outcomes such as retention. With respect to the health impairment process, this thesis applies a new concept of burnout (Demerouti et al. 2010), which may provide valuable additional insights into the experience of a concept not previously examined within a

volunteer context. The motivational pathway of the JD-R model is examined through the concept of organisational connectedness, a new volunteer motivation construct recently validated in samples of Australian volunteers (Huynh et al. 2012b). This thesis will therefore contribute towards knowledge by examining both the dual and cross-processes of the JD-R model associated with burnout and connectedness.

The flexibility of the JD-R model enables an examination of job characteristics relevant to the Special Constabulary. For instance, the conflict between paid work and volunteering has yet to be examined in volunteering. The thesis also explores the relationships between paid staff and volunteers, examining how a volunteer's perception of their working relationships with regular officers influences well-being and retention. Another unique contribution of this thesis is an examination of the relationships between volunteer burnout, connectedness and the level of perceived reciprocity experienced between specials and members of the public.

This thesis also considers a number of previously unexamined variables that may positively influence motivation and retention. For instance this study is the first to examine the impact of on-the-job learning, perceived access to training and the provision of challenging assignments within volunteer work on motivation and retention. Building on previous research that has often shown counterintuitive results, the impact of different sources of social support on volunteer well-being and retention is also considered (e.g. Omoto and Snyder, 1995).

This study also makes further contributions to knowledge through the use of longitudinal data examining for causal and reverse causal relationships between well-being, motivation and outcomes such as retention. Very few studies have examined these issues within paid workers and this thesis is first to test for causal and reverse causal relationships in a volunteer context.

The research also makes methodological contributions to the study of volunteerism, implementing a unique means of delivering the main research tool. Whilst the data collection method helped to ensure a good response rate for both study waves, it also provided an opportunity to analyse the survey responses alongside self-reported volunteer activities. This methodologically innovative procedure therefore enabled an examination of the impact of work-based activities on variables at a level not previously possible in volunteer research. This may provide important new insights into the aspects of volunteer work that influence well-being and retention.

Overall, by implementing a rigorously tested and validated model of employee health and well-being, this research builds a comprehensive understanding of the factors associated with volunteer job satisfaction, organisational commitment and retention within the Special Constabulary. Along with the organisational experiences of volunteers, the factors that influence these outcomes remains one of the most neglected areas of volunteer research (Wilson, 2012; Studer and von Schnurbein, 2013).

1.6 Contributions to practice

As an Economic and Social Research Council (ESRC) funded PhD CASE studentship the importance of making contributions to both theory and practice is recognised. Retention was identified by the Chief Officer of the Special Constabulary at the Case Organisation as a priority. Organisational targets aimed towards increasing the number of volunteers within the force highlight the relevance of this research to practice. The findings of this research were also used to appraise the force's progress towards the Association of Chief Police Officers (ACPO) National Strategy for the Special Constabulary (2011-16). Regular consultation with staff at the Case Organisation helped to ensure that the research remained relevant to its target audience.

High volunteer turnover rates present operational and financial costs to organisations as they not only have to fund training and equipment for new recruits, but also conduct additional recruitment when volunteers leave. The theoretical perspectives adopted in this research provide the Special Constabulary with an evidence base through which to develop strategies to improve retention. This builds on the view that volunteer involving organisations should consider the ways in which retention can be improved, rather than relying on continuous recruitment (Brudney and Meijs, 2009). Organisations frequently fail to devote the same level of resource to the management of volunteers compared to paid staff (Mook et al. 2007) and this may fuel the need for continuous recruitment. Whereas previous voluntary sector research has focussed on the dispositional characteristics of volunteers associated with retention, this research examines various work-related factors that reside within the organisation's sphere of influence. Consequently, rather than presenting the Special Constabulary with a list of factors influencing retention, this thesis aims to identify those that are most impactful.

1.7 Thesis overview

1.7.1 Chapter 2: Literature Review

The literature review of this thesis is split into two main sections. The first section reviews the literature addressing sustained volunteerism. This identifies gaps in the current voluntary sector literature, drawing attention to the need to consider the organisational environment of volunteering. Various models developed in the context of paid work are considered before the JD-R model is introduced as an appropriate theoretical framework through which to examine volunteer retention. The second section of the literature review considers two concepts thought to be associated with the health impairment and motivational processes of volunteer work within the JD-R model. Their relevance to the Special Constabulary and the ways in which they may inform knowledge regarding volunteer retention are examined.

1.7.2 Chapter 3: Methodology

The methodology outlines the research strategy used to address retention within the Special Constabulary. It provides a justification of the philosophical stance taken before considering in more depth the research design. An outline of the organisations participating in this research is provided before information concerning survey design, data collection and research participants are discussed. The final section of this chapter justifies the statistical techniques employed to examine the theoretical propositions of the JD-R model.

1.7.3 Chapter 4: Measurement Indices

Chapter 4 considers the various scales and items used in the research. The chapter begins by reviewing the relevant literature to identify a series of job characteristics considered as either job demands or resources. This section also provides a review of the outcome measures predicted by the theoretical model. The second half of this chapter provides information on the underlying factor structures of burnout and connectedness, as well as presenting the psychometric properties of the independent and dependent variables used.

1.7.4 Chapter 5: Burnout in the Special Constabulary

Chapter 5 provides a detailed overview of the cross-sectional findings regarding the health impairment process of the JD-R model. First preliminary analysis of the various variables associated with this processes is presented. This preliminary analysis also includes information on the relationships between the ESIBS data and the survey variables as well as between burnout and reciprocity. This chapter then considers the direct and indirect relationships between the study variables within the health impairment process of the JD-R model. The final section of this chapter presents analysis designed to identify the relative importance of each job demand.

1.7.5 Chapter 6: Connectedness in the Special Constabulary

This second findings chapter outlines the motivational pathway of the JD-R model, examining the indirect effect of job resources on volunteer outcomes through connectedness. Having appraised the main effects of the JD-R model, this chapter also examines the distinctiveness of the pathways within JD-R model by testing for cross-processes. Similar analysis to that of Chapter 5 is also conducted to identify the relative importance of each job resource.

1.7.6 Chapter 7 Longitudinal Findings

The final empirical chapter of this thesis considers the causal and reverse causal relationships between burnout, connectedness and the outcome variables. A summary of the key findings in relation to each of the hypotheses is also presented.

1.7.7 Chapter 8: Discussion

Chapter 8 provides a discussion of the key theoretical, practical and methodological contributions of this thesis. This chapter concludes by considering the limitations of the study and highlights potential future research directions.

Chapter 2 Literature Review

This literature review is divided into two main sections. Section 2.1 considers the various volunteer-based and paid-work models that examine issues such as retention, organisational commitment and job satisfaction. Here volunteer-based approaches such as functionalism, role identity theory and the three-stage model of volunteerism are examined, before the theoretical perspectives developed within studies of paid work are appraised. Section 2.5 examines the two proposed mediators used in this study: burnout and organisational connectedness. Here it is considered how both burnout and connectedness can contribute towards our understanding of the health and well-being of volunteers, leading to the development of a theoretical model and a series of hypotheses that will be tested in this thesis.

2.1 Volunteer-based studies of retention

2.1.1 The functional theory of volunteer motivation

Functionalism considers the motives that drive certain behaviours such as volunteering. The theory suggests that all individuals have basic psychological needs and that various behaviours, including volunteering, are conducted because they serve one or more of these needs (Musick and Wilson, 2008). The extent to which any behaviour serves one (or more) of these underlying needs in turn influences the desire to continue in it (Katz, 1960). The motivation to volunteer is complex, extending beyond notions of pure altruism (Smith, 1981), as individuals may be driven by both altruistic and egoistic motives (Shye, 2010). This has been recognised in studies of the Special Constabulary, in which volunteers have reported both self and other-orientated motives (Gaston and Alexander, 2001). More broadly, the multi-dimensional nature of motives is recognised by a number of studies (Unger, 1991; Black and DiNitto, 1994) however, the volunteer functions inventory (VFI; Clary et al. 1998) has emerged as the most dominant approach to the quantitative study of motives (Wilson, 2012).

The VFI identifies six underlying volunteer functions (values, understanding, social, career, protective and enhancement) that fulfil both self and other-orientated motives. Clary et al. (1998) used this inventory to demonstrate that when individuals reported receiving functionally relevant benefits through their volunteering, they were both more satisfied and more likely to continue in their roles. These effects appear to be cumulative, as increasing the number of functional matches further enhances satisfaction and retention (Stukas et al. 2009).

Others however have acknowledged concerns with this approach, particularly in relation to the study of volunteer retention. For instance, whilst studies have confirmed the six-factor structure of the VFI (e.g. Okun et al. 1998; Kim et al. 2010), Shey (2010) questions whether these six motives are sufficient to capture the multitude of potential reasons an individual might volunteer. It is also important to recognise that the motives that prompt volunteer work may not be the same as those that sustain it (Chacón et al. 2007). It has been demonstrated that initial altruistic motives often give way to more self-orientated motives as volunteers begin to place more emphasis on the rewards provided by volunteering (Cnaan and Goldberg-Glen, 1991). When studying motives, it is therefore important to establish not only the initial motives driving volunteering but also current ones (Gidron, 1983; 1985; Finkelstein, 2008).

Research on motives has also produced conflicting results. Depending on the context, studies have found that different motives predict service duration (Penner and Finkelstein, 1998; Greenslade and White, 2005). Alternatively studies have found no links between motives and retention (Chacón et al. 2007). Houle et al. (2005) demonstrated the idiosyncrasy with which volunteers select tasks based on the motives they fulfil, suggesting that volunteers should be given greater latitude in determining their tasks. Another limitation relevant to the current study is the capacity of the organisation to meet the functional needs of its volunteers. Snyder and Ickes (1985)

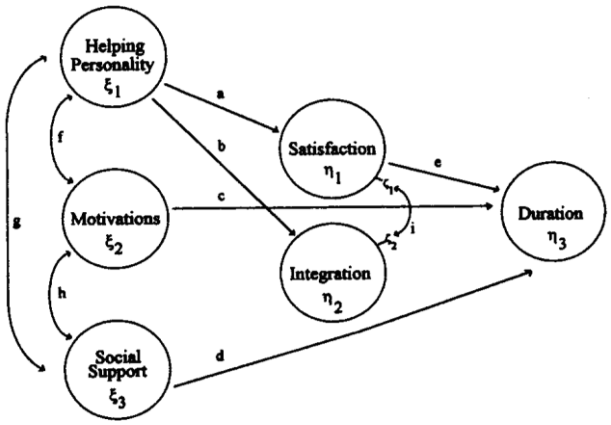
argue that subjective dispositions such as motives are more predictive in less structured, weak organisational contexts where there are fewer rules and organisational procedures to follow. With its command and control and rank structure (Caless, 2010), the Special Constabulary is unlike other forms of volunteering. Police organisations may therefore be considered as strong organisational contexts (Snyder and Ickes, 1985) guided by entrenched behavioural norms and the pressure to act in a certain way (Van Maanen, 1975; Reiner, 2000). Here, volunteers are more likely to be tasked into certain jobs rather than choosing the work they do. Therefore it is likely to be more challenging for such organisations to satisfy the motivations of its volunteers.

The multi-dimensional, temporal and idiosyncratic nature of motives limits their merit towards a study of retention within strong organisational contexts such as the Special Constabulary. However, motives are known to correlate with other constructs, such as the development of a volunteer role identity, which in turn have been found to be better predictors of outcomes such as satisfaction and retention (Finkelstein et al. 2005). This has led others to consider a more integrated approach when examining volunteer retention.

2.1.2 The Volunteer Process Model

The volunteer process model (VPM) incorporates the functional perspective of motives to examine three conceptual stages associated with volunteering (figure 2.1). The antecedent stage examines the initial drivers of volunteering, such as motives and personality. The second stage considers the experience of volunteering including the aspects of volunteer work that promote continuance. Here satisfaction, including motive satisfaction and organisational integration are said to influence the individuals desire to continue. The final stage considers the consequences of volunteering such as the duration of service a volunteer provides.

Figure 2.1: The structural model of the volunteer process



Source: Omoto and Snyder (1995: 679)

Omoto and Snyder (1995) found that self-orientated motives were directly related to increased service duration. Volunteers who report that their volunteering provided them with opportunities for personal development were more likely to continue than those who have more altruistic motivations. Omoto and Snyder (1995) found that having a helping personality influenced satisfaction and organisational integration but not service duration, highlighting the different antecedents of each outcome. A negative relationship was also found between those who perceived that their volunteer work provided them with greater levels social support and service duration. To explain this counterintuitive finding, Omoto and Snyder (1995) suggest that volunteers who lack social support may volunteer as a means to develop social relations. Alternatively, social networks may serve as sanctioning bodies against less socially desirable activities such as HIV/AIDS volunteering, the context examined by Omoto and Snyder (1995). Later, Snyder et al. (1999) demonstrated that HIV/AIDS volunteering could lead to the stigmatisation of volunteers, impacting on levels of burnout and satisfaction. Therefore individuals with strong social networks may leave their volunteer role to minimise further damage. Social support is known to be an important resource to paid workers (Bakker and Demerouti, 2007), including police officers (Brown et al. 1999), but remains unexamined within the Special Constabulary. For instance it is unknown which sources of social support (co-volunteer, supervisor regular police officer, family)

specials might value, or whether social networks potentially serve as sanctioning bodies against other forms of volunteering, such as within the police.

The VPM was later expanded to include the subjective experiences of volunteers including the emotional responses of volunteers. Davis et al. (2003) found that emotional distress experienced during the early stages of volunteer work predicted lower levels of satisfaction. Their findings led them to emphasise the importance of training in order to help prepare volunteers for the demands of their work. Highlighting the temporal nature of motives, Davis et al. (2003) also reported that whilst motives predicted satisfaction this relationship was only significant during the first year of volunteering. Although models such as the VPM have started to appraise the experience of volunteering in relation to retention, other approaches have instead highlighted the importance of the social structure of unpaid work and the impact this has on the individual's self-concept.

2.1.3 Role Identity and Social Identity Approaches

Identity theory demonstrates how the social structures associated with volunteering influence both the self-concept and behaviour (Mead, 1934; Stryker and Burke, 2000). Role identities influence the ways in which individuals view the social world, the more salient a role identity becomes the greater the likelihood that it will become absorbed by an individual (person-role merger), resulting in behavioural change (Turner, 1978; Callero, 1985). The development of a role identity is influenced by the perceived importance an individual ascribes to the behaviour in question and the perceived expectations of others to enact that behaviour (Turner, 1978; Stryker, 1980). Behaviours motivated by the roles individuals play gradually become part of the self-concept that influences future action (Callero et al. 1987). Volunteer role identities are said to represent a recognisable and distinct social object that defines the self-concept

and guides both future perceptions and actions, such as continued volunteering (Callero et al. 1987).

The concept of a volunteer role identity was first supported in studies of blood donation (Piliavin and Callero, 1991; Grube and Piliavin, 2000). Marta and Pozzi (2008) found that other orientated motives, group integration and satisfaction with the volunteer role all predicted the onset of a volunteer role identity, which in turn emerged as the best predictor of retention. Previous episodes of volunteering and strong volunteer role identities are also predictive of future donations of time, money and blood (Lee et al. 1999). Grube and Piliavin (2000) found evidence for both specific volunteer role identities aligned to a particular charity and general volunteer role identities, with each of which governing different patterns of volunteerism. Specific role identities were more predictive of satisfaction and retention, although they were related to lower levels of participation in other volunteer work. Grube and Piliavin (2000) suggest that because the amount of time a person can donate is limited there exists a push-pull effect between the two forms of identity that could be a source of potential stress. Other research suggests the existence of collective role identities based on salient individual-level characteristics such as sexuality. Simon et al. (2000) found that homosexuals were more willing to participate in HIV/AIDS volunteerism when there was a higher sense of collective identification in terms of sexual orientation, with the opposite true of heterosexuals. Converse effects were found when individual as opposed to collective identification was examined. Grönlund (2011) suggests that volunteering outcomes are associated not only with the identities of the roles volunteers enact, but also the identities of the incumbents who occupy them.

Rather than focussing on the characteristics of the individual, social identity approaches to volunteerism examine the underlying patterns within organisations that define and maintain an individual's social identity (Tyler, 1999). Organisational

identification leads to a sense of collective belonging in which the divergent characteristics of out-group members become more salient (Tajfel and Turner, 1985). Individuals will adapt their behaviours to the norms of the collective and conform to the in-group prototype to maintain their status (Hogg and Terry, 2000). Within this theoretical framework, Tidwell (2005) demonstrated how the strength of a volunteer's organisational identification predicted levels of commitment and satisfaction.

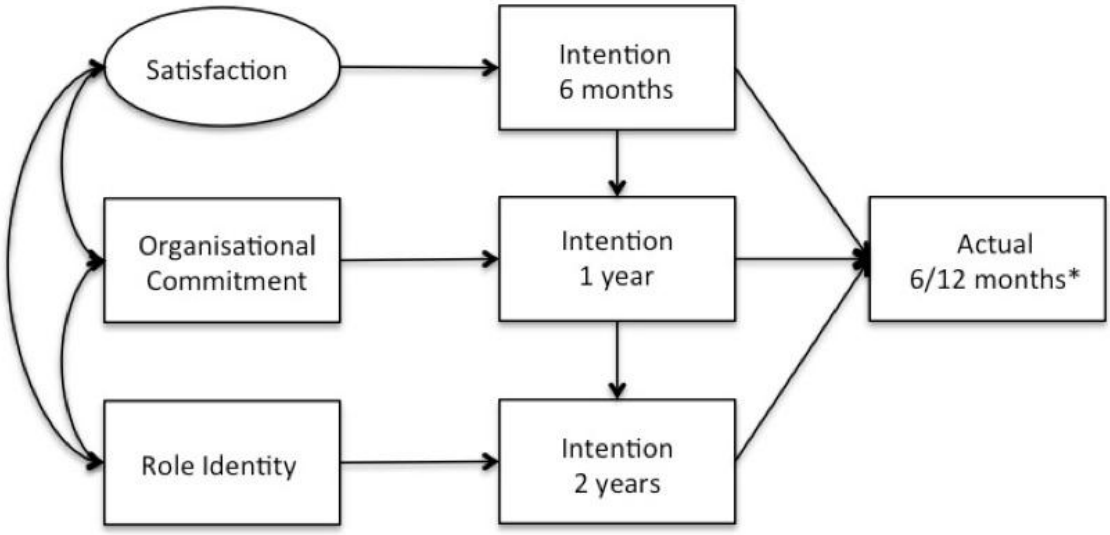
Although distinctions have been made between specific, general, individual and collective identities the there is little consensus as to what constitutes the prototypical volunteer role identity, or whether any single identity is sufficient to represent the underlying processes within the volunteer context (Grönlund, 2011). In relation to the current study, specials may identify themselves more generally as a volunteer (general), special/police officer (specific), or collectively within the police force. There is no theoretical reason to suppose that any of these identities is more or less salient or relevant to sustained volunteering. Moreover, as Special Constabulary volunteerism represents an important route into police work these identities may be transient. Multiple, potentially conflicting, identities may be functioning within and across different individuals simultaneously (Grube and Piliavin, 2000). Social identity reflects a potential alternative to the examination of volunteer retention however, the complex socialisation processes within police forces (Van Maanen, 1975) associated with 'cop culture' (Reiner, 2010) and the exclusion of specials (Leon, 1991) makes it difficult to appraise the utility of such approaches within Special Constabulary volunteerism.

2.1.4 The Three-Stage Model

Recognising the findings of previous research the three-stage model (Chacón et al. 2007) was developed as a means to incorporate both motives and role identity into the study of sustained volunteering. The three-stage model views volunteering as form of planned behaviour (Ajzen, 1991) and uses behavioural intentions (i.e. an individual's

intent to continue volunteering) as an indicator of retention (figure 2.2). Chacón et al. (2007) demonstrated that whilst motive satisfaction was most predictive of continuance in the early stages of volunteering, the development of organisational commitment and a volunteer role identity represented a stronger set of predictors of sustained volunteerism in longer-term volunteers (Chacón et al. 2007). The relationship between motive satisfaction and role identity on one hand, and service duration on the other, was mediated by the intent to remain as a volunteer. Chacón et al. (2007) highlight the importance of understanding behavioural intentions in relation to retention (Ajzen 1991), a finding that was influential in the choice of outcome measure used to estimate the effect of job characteristics on retention in the current study. Consequently Chacón et al. (2007: 639) suggest that, "the best predictor of actual service duration is volunteers' own intention to remain."

Figure 2.2: The three-stage model



*The model predicts actual volunteering at 6 and 12 months separately. The relationships between intentions of 1 and 2 years volunteering become stronger when actual behaviour at 12-months is the dependent variable.

Adapted from Chacón et al. (2007: 636-637)

One of the limitations associated with the three-stage model and other research in this field (e.g. Gazley, 2012; Finkelstein et al. 2005; Penner and Finkelstein, 1998) is the

examination of concepts such as job satisfaction, commitment and retention in isolation from any variables that could be influenced by the organisation. For instance, the relationship between functional motives and role identity has been demonstrated as inconsistent (Omoto and Snyder, 1995; Penner and Finkelstein, 1998). It may be equally difficult for organisations to satisfy the motives of their volunteers as per the matching principle (Stukas et al. 2009) within strong organisational contexts (Snyder and Ickes, 1985) such as the police. Consequently there is a need to further understand organisational-type variables within formal volunteering contexts when attempting to determine the antecedents of satisfaction, commitment and retention.

2.1.5 Integrated Approaches

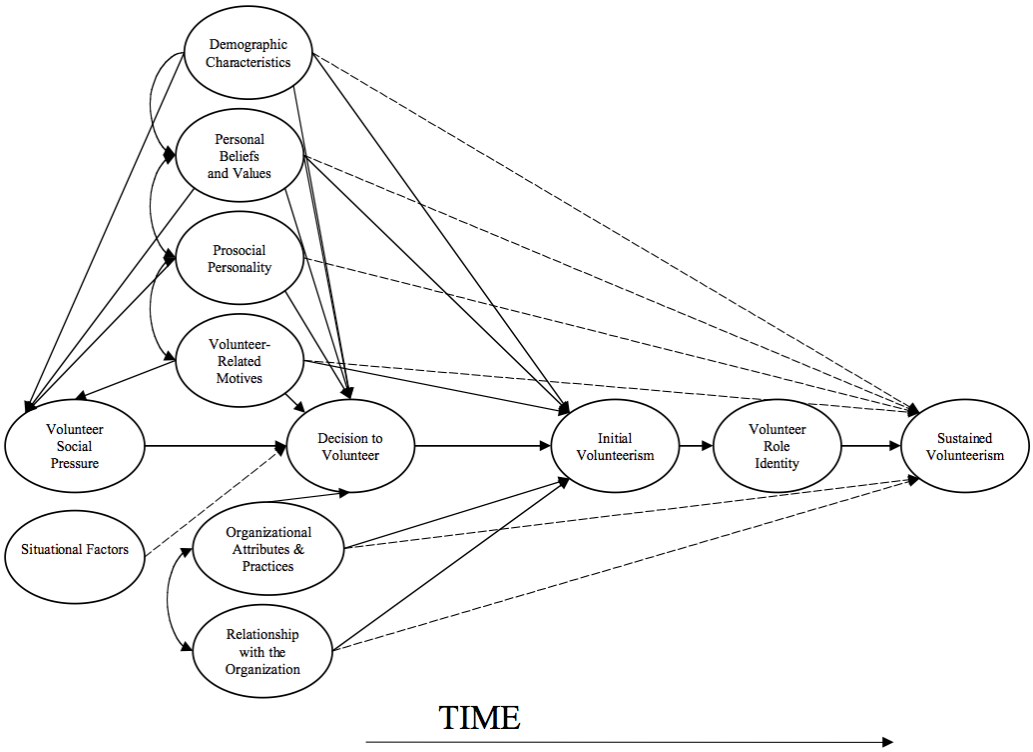
Penner (2002) recognised that whilst a great deal of volunteering work is conducted within formal organisations relatively few empirical studies consider the impact of the work environment on volunteers. This led Penner (2002) to the develop a conceptual model of sustained volunteerism that incorporates various demographic, dispositional, situational and organisational-level variables thought to interact with each other, as well as having direct and indirect effects on retention. Recognising the importance of the organisation within formal volunteering Penner (2002: 464) writes,

> "One should not assume that just because a person is motivated by altruistic concerns that his or her initial level of volunteer service would be unaffected by attitudes toward the service organization… service organizations must do more than simply recruit volunteers' they must work to maximize the volunteers' involvement with that organisation."

Penner's (2002) conceptual mode (figure 2.3) suggests that dispositional variables, as well as organisational attributes/practices and the relationship of the individual to the organisation, have a direct influence on both the decision to volunteer and initial volunteerism. It is suggested however, that over time the development of a volunteer

role identity directly predicts retention. The fusion of functional theorising and role identity approaches into a single study is not unique (e.g. Penner and Finkelstein, 1998; Finkelstein et al. 2005) however, the influence of each on retention has tended to be addressed in isolation.

Figure 2.3: The causes of sustained volunteering



Source: Penner (2002: 461)

Penner and Finkelstein (1998) found empirical support for both the functional and role identity approaches, whilst Finkelstein et al. (2005) found only role identity to predict retention. One possible limitation of the Finkelstein et al. (2005) study was that it asked relatively tenured volunteers their initial motives for volunteering. The fact that these are known to change over time may have influenced the non-significant findings between motives and retention. Whilst Penner's conceptual model presents an integrated approach to the study of volunteerism, its complexity in terms of the number

of variables required for a complete test limits its potential as a tool for accessing volunteer retention.

Penner's model is significant however, because it highlights the importance of organisational factors in volunteer retention. Organisational design (Pearce, 1983) and the procedures used to manage volunteers (Cuskelly et al. 2006) have been largely neglected in studies examining volunteer retention. However, when considered such variables have been demonstrated to explain significantly more variance within outcomes compared to that of socio-demographic variables or subjective dispositions (Cnaan and Cascio, 1998). Using Herzberg's (1968) two-factor theory of job satisfaction, Jamison (2003) demonstrated how hygiene factors related to the work environment (e.g. working conditions, training) and motivators (e.g. responsibility, job challenge) influenced retention. In particular, pre-service and in-service training as well as the provision of challenging work influenced satisfaction and retention (Jamison, 2003). Lo Presti (2013) found that the provision of a range of volunteer job resources had a positive influence on satisfaction, commitment and retention. Relationships between job resources and retention were moderated by the career function of the VFI, leading to the conclusion that volunteer job resources were important to those who saw their volunteering as contributing towards a future career (Lo Presti, 2013). This has obvious implications towards the study of retention within the Special Constabulary.

Drawing on the job characteristics model (JCM; Hackman and Oldham, 1975), Millette and Gagné (2008) extend these ideas to examine how different job characteristics (e.g. skill variety, task significance, feedback) influenced motivation, satisfaction and retention within the theoretical framework provided by self-determination theory (SDT; Ryan and Deci, 2000). Millette and Gagné (2008) demonstrated the important role played by motivation in the mediated relationship between job characteristics and satisfaction and retention. The study by Millette and Gagné (2008) is important

because it begins to examine the underlying processes that link the characteristics of a volunteer's role to outcomes such as retention. Job characteristics can have a profound impact on employee well-being, job performance, satisfaction and tenure (Bakker and Demerouti, 2007) and these lessons have recently been transferred across into the study of paid police work (e.g. Richardsen et al. 2006; Martinussen et al. 2007) and to a lesser extent volunteering (e.g. Lo Presti, 2013). Understanding the factors linking aspects of a volunteer's role to outcomes including retention is important, particularly within higher-risk professions such as police work. Policing is linked to a range of different organisational and operational stressors, which can impact on the physical and psychological health of officers (Brown and Campbell, 1990; Anderson et al. 2002; Adams and Buck, 2010). The well-being of police officers has been linked to various outcomes including performance, attitudes towards and actual use of violence (Euwema et al. 2004), burnout (Maslach and Jackson, 1981), suicidal ideation (Burke and Mikkelsen, 2007), work-family conflict (Hall et al. 2010), life satisfaction, commitment and intention to quit (Burke et al. 2006).

The demands and stressors of police work are typically characterised as falling into two categories: operational stressors associated with the nature of the work and organisational and managerial factors associated with the structure of the work (Hart et al. 1995). Research including UK-based officers appears to confirm that it is the organisational and managerial factors, as opposed to operational ones, that are more frequently and more severely experienced as stressors within police work (Brown and Campbell, 1990; Biggam et al. 1997; Kop et al. 1999; Collins and Gibbs, 2003; Shane, 2010). Despite officers considering their work environment to be unique, this suggests that the appraisal of stress within policing may not be too dissimilar from other occupations (Hart and Cotton, 2003). Therefore models developed within broader samples of paid employees that consider the organisational and managerial aspects of work may be applicable within the context of the Special Constabulary. For instance,

whilst research suggests that factors outside the control of the police have a significant impact on retention (e.g. work/study and family commitments), Gaston and Alexander (2001) inform us that organisational and managerial factors form important secondary reasons. Therefore, if Special Constabularies can identify and minimise the demands of volunteering, it might be possible to develop a more favourably perceived work environment that may positively influence retention. There is however very little research in this field or within volunteer-based studies more widely. As previously demonstrated, studies have more frequently focussed on the dispositional factors associated with retention and more sophisticated models are required to appraise the impact of job characteristics on well-being within volunteer work and the Special Constabulary.

To address this, Section 2.2 examines the most prominent models of job stress that have been used to examine employee well-being including the Job Demand-Control (DC; Karasek, 1979), Job Demand-Control-Support (DC-S; Johnson and Hall, 1988) and Effort-Reward Imbalance (ERI; Siegrist, 1996). These models are critically appraised, particularly in relation to their use in a volunteer context, before the Job Demands-Resources model (JD-R; Demerouti et al. 2001; Demerouti and Bakker, 2007) is introduced as a flexible and theoretically robust model through which to examine volunteer well-being and retention.

2.2 Organisational approaches

2.2.1 Job demand-control model

Within the job demand-control (DC), issues affecting the psychological work environment (e.g. those influencing well-being) are determined by the interaction between job demands and job control or decision latitude (Karasek, 1979; Karasek and Theorell, 1990). The DC model investigates the impact of organisational structure and job characteristics on strain, rather than examining the individual differences in coping

such as those aligned to personality type (Metzer, 2003). Individuals who are able to decide how to meet their job demands are less likely to experience job strain (Karasek, 1979). Job demands refer to issues such as workload, time pressure and role conflict, whilst job control (decision latitude) refers to the ability of an individual to control their work, including skill discretion and decision authority.

Under the strain hypothesis of the DC model, high strain jobs are those with high demands and low control. Such jobs are those most likely to be related to health and psychological complaints such as burnout. Low strain jobs, characterised by low demand and high levels of control, are considered to be the opposite of high strain jobs. Active jobs are those in which individuals experience high job demands and high job control and are more likely to promote motivation and personal growth. These jobs are the conceptual opposite of passive jobs, characterised by low demands and low control. Although the strain hypothesis has received support, empirical evidence supporting the ability of job control to buffer the effects of job demands is less convincing (Van der Doef and Maes, 1999).

The ability of volunteers to control their work environment, particularly within strong organisational contexts and command and control systems is also less clear. Command and control systems are characterised by standard operating procedures and centralised authority (Vigoda, 2002), whilst the reactionary nature of much police work provides officers with little opportunity to control their work. The DC model has also been critiqued for its limited appraisal of work-based characteristics. Previous research suggests that social support, particularly from supervisors and colleagues, is another important potential buffer missing from the original DC model. As such Johnson and Hall (1988) extended the hypotheses of the DC model to incorporate social support.

2.2.2 Job demand-control-support model

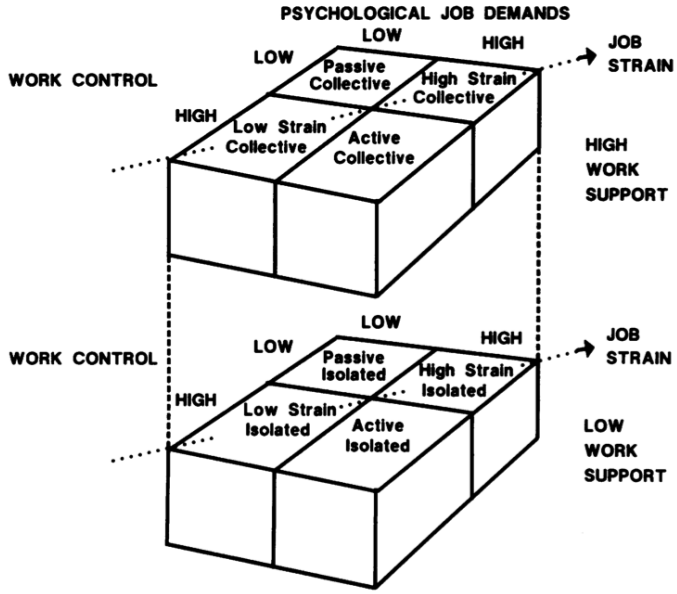
The theoretical propositions of the job demand-control-support (DCS) model are similar to those of the DC model, with the addition of the buffering effect of work-based social support (Johnson and Hall, 1988). The DCS model (figure 2.4) dichotomises work into isolated and collective social support conditions. High demand jobs, with low control and low social support/isolation (iso-strain hypothesis), are those in which individuals are at the highest risk of strain and burnout (Johnson and Hall, 1988). Social support plays a key role in buffering the effects of job strain on well-being (Johnson and Hall, 1988).

The DC and DCS models address two separate hypotheses (Van der Doef and Maes, 1999). The first relates to the negative impact of working conditions in high strain/iso-strain situations, whilst the buffering hypothesis refers to the interaction between job demands and control, in which control/social support moderates the effect of job demands (Van der Doef and Maes, 1999). In their review of the DC and DCS models, Van der Doef and Maes (1999) found considerable support for the strain/iso-strain hypothesis whilst, evidence to support the moderating effects of control/support was less consistent. Alternatively de Lange et al. (2003) found modest support for both the strain and buffering hypotheses with, 42% of the studies included in their review supporting both.

Although the DCS model includes social support as an extension to the original DC model support for its theoretical propositions remains inconclusive. Both the DC and DC-S models have been critiqued for placing precedence on job control/decision latitude and for selecting only a limited number of variables that may not be reflective of the causes of strain in all occupations (Van der Doef and Maes, 1999; de Lange et al. 2003). As previously stated, these concerns are particularly relevant within the

command and control context of the Special Constabulary. Consequently the DC/DCS models are limited in scope and would potentially not apply in all volunteer contexts.

Figure 2.4: Job Demand-Control-Support model



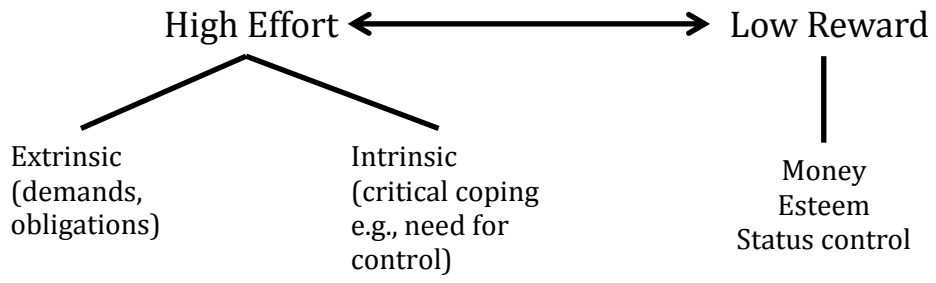
Source: Johnson and Hall (1988: 1336)

2.2.3 The Effort-Reward Imbalance Model

The effort-reward imbalance (ERI) model is based on the reciprocity of exchange associated with work environments in which high-cost/low-gain circumstances result in stress (Siegrist, 1996). Effort expenditure at work forms part of an exchange process under which individuals are rewarded for their contributions made. EFI research focuses on the rewards offered through work rather than the control of support structures (Demerouti and Bakker, 2007). The ERI model distinguishes between extrinsic job demands and the intrinsic motivation required to meet those demands and the rewards in terms of salary, esteem and career opportunities (figure 2.5).

Imbalance and emotional distress occurs when there is a lack of reciprocity between gains and costs (i.e. high-cost/low-gain conditions; Siegrist, 1996). Although the DC and DCS models are restricted to the structural aspects of the psychosocial work environment, the ERI model includes both structural and personality characteristics (Siegrist et al. 2004). 'Overcommitment' is introduced to define those individuals who expose themselves to excessive demands as a means to seek approval from co-workers (Siegrist et al. 2004). Overcommitted individuals, who experienced high-effort/low-reward, are more likely to experience emotional exhaustion compared to those with low-effort/high-reward (de Jonge et al. 2000). Although the ERI model takes account of personal characteristics in relation to work, Bakker and Demerouti (2007) criticise both the DC/DCS and ERI model for being overly simplistic and static nature. For instance both the DC/DCS and ERI models focus on a limited number of variables that may not be applicable to all occupations. Furthermore, it is unlikely that volunteers would consider financial reimbursement as a reward of volunteer work unless receiving a stipend. The need for control may also be less significant within command and control volunteer contexts.

Figure 2.5: The Effort-Reward Imbalance model



Adapted from: Siegrist (1996: 30)

Another critique of both the ERI and DC/DCS models is the focus upon the negative aspects of work leading to strain and burnout. These models lack the flexibility to

consider demands that may originate from outside work, which may be relevant to volunteering such as conflict between work/volunteer and family roles (Cowlishaw et al. 2008; 2010). Therefore the demands of work pressure and effort may only be reflective of a limited number of occupations (Demerouti and Bakker, 2007). Furthermore, many studies report the positive outcomes of volunteer work such as improved well-being (Thoits and Hewitt, 2001; Morrow-Howell et al. 2003; Wilson and Musick, 2003). Resources such as training (Fahey et al. 2002) or job challenge (Jamison, 2003) are known to influence retention, yet these models exclude such concepts. Due to the limited nature of the DC/DCS and ERI model it is important to consider more flexible theoretical frameworks, whose propositions may be able to be applied within contexts such as the Special Constabulary.

2.2.4 The Job Demands-Resources Model

The JD-R model was initially developed to study the antecedents of burnout in paid work (Demerouti et al. 2001). Within the JD-R model, the characteristics of an individual's job are thought to have a significant impact upon their overall level of well-being which, in turn, impacts on outcomes such as performance (Bakker and Demerouti, 2007). The JD-R model is underpinned by two key assumptions thought to be relevant to any occupation. First, the antecedents of strain are considered to be the result of various job characteristics categorised as either job demands or job resources. Second, both demands and resources influence two underlying processes related to health and well-being.

Job demands are considered to be the physical, social or organisational aspects of a role that require continuous physical or mental effort meaning that their presence is associated with physiological and psychological costs (Demerouti et al. 2001: 501). In their meta-analysis of the correlates of burnout, Lee and Ashforth (1996) identified a number of potential job demands such as role ambiguity, the experience of stressful

events, workload and work pressure. Alternatively, job resources refer to various physical, psychological, social or organisational aspects an individual's job that,

> "are functional in achieving work goals, reduce job demands and the associated physiological and psychological costs, or stimulate personal growth and development." (Bakker et al. 2005: 170).

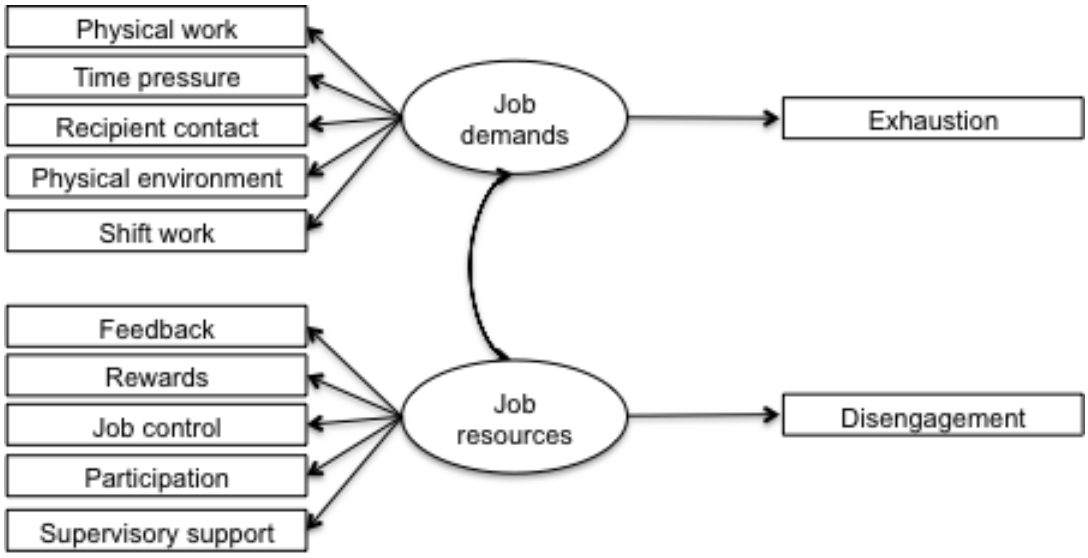
Job resources are important, not only because they help individuals to achieve their goals, but also because they protect existing resources and aid the achievement of others (Bakker and Demerouti, 2007). Job resources (and demands) exist at various levels such as at the organisational level (e.g. career opportunity), the interpersonal level (e.g. social support), at the level of the organisation of the work carried out (e.g. role ambiguity, challenging work) and at the task level (e.g. performance feedback). The JD-R model is informed by the conservation of resources (COR) theory (Hobfoll, 1989), describing the processes under which individuals strive to retain, protect and develop their resources. Psychological stress occurs when an individual's environment threatens resource loss, results in resource loss, or when the investment of resources fails to pay off in terms of resource gain (Hobfoll, 1989: 516). Social support, job enhancement and autonomy are considered as significant job resources within paid work (Lee and Ashforth, 1996).

Although the relationships between job demands, job resources, burnout and motivation have been well established in paid worker contexts (Lee and Ashforth, 1996; LePine et al. 2005; Podsakoff, 2007; Crawford et al. 2010) the same cannot be said for the study of volunteerism. A growing body of research has started to examine the impact of job characteristics (Lewig et al. 2007; Cox et al. 2010; Huynh et al. 2012a; 2012c) and their relationship with well-being. However, further research is required to understand whether these same relationships apply within a UK volunteer context or within the Special Constabulary. The relationship between job demands/resources and

burnout in the volunteer context has only been examined using the Maslach Burnout Inventory (MBI), which as shall be discussed later, has a number of conceptual and psychometric limitations. Further research using a wider range of validated scales representing various context specific job demands and resources would help address the shortcomings of the existing nascent literature base examining the impact of job characteristics in volunteer settings.

The second assumption of the JD-R model is the presence of two distinct underlying psychological processes leading to the development of burnout. The energetic process demonstrates how demands lead to exhaustion, whilst the motivational process examines how the lack of job resources leads to withdrawal behaviours.

Figure 2.6: The JD-R model



Source: Demerouti et al. (2001: 502)

Under the first process (figure 2.6), the prolonged presence of high job demands results in the activation of performance protection strategies. When faced with high job demands individuals activate compensatory behaviours such as the investment of additional resources to maintain performance (Hockey, 1997). The strain coping model (Hockey, 1997:81) understands that when faced with increased job demands,

individuals will strive to maintain performance levels through increased effort. Whilst temporary shifts to a higher effort level may be only brief or moderate in impact, long-term exposure to high demands is associated with energetic costs (Hockey, 1997). Therefore, under the JD-R model high job demands are associated with increased effort and are instrumental in leading to psychological and/or physical exhaustion (Demerouti et al. 2001).

The second process is de-motivational in nature, suggesting that work environments with low levels of job resources prevent individuals from achieving their goals, making it difficult to deal with any existing or further demands (Demerouti et al. 2001). Therefore the demotivating pathway of the JD-R model examines the underlying mechanisms relating to the self-protection practices enacted by individuals such as withdrawal behaviour and disengagement from work (Demerouti et al. 2001). This view is accords with Hockey's (1997: 82) passive coping mode in which exposure to excessive demands activates self-protection strategies, such as withdrawal or the downward adjustment of performance targets, as a means to prevent further energy loss.

Hockey (1997) suggests that passive coping is likely to be more prevalent in self-managed work, or within contexts lacking instrumental control opportunities defined by a sense of helplessness and a perception of powerlessness (White and Porth, 2000). Passive coping may therefore have a substantial impact on retention within non-obligatory helping behaviours such as Special Constabulary volunteerism. Whilst specials have less control over the content and organisation of their work, they are able to control whether or not they work and this may influence retention. In this sense, withdrawal could be temporary or permanent and may therefore influence the high turnover rates found in Special Constabulary headcount statistics. These two processes therefore have implications that extend beyond the individual volunteer. Occupational well-being is important because it impacts not only upon the individual,

but also upon organisational performance (Hart and Cotton, 2003). Withdrawal, either temporary or permanent, impacts upon the operational capability to provide a police response to incidents. Furthermore, Special Constabularies invest organisational resources into the recruitment and training of volunteers, which are then lost when individuals leave (Watson and Abzug, 2010). These activities need to be repeated when volunteers leave, representing additional costs at a time of increased financial constraint for police forces. Other passive coping modes such as the reduction of goal orientation (Hockey, 1997) may also have additional negative effects. Individuals may take longer to complete probationary periods and training which, in the context of police work, may pose a risk to personal safety. Non-favourable work environments may also lead specials to reduce the total number of hours they volunteer to the force. A further reduction in goal orientation may reduce the individual's willingness to be exposed to the realities of police work as a means to gain experience for any future role in paid police work, or may make officers reluctant to consider promotion through the rank structure of the Special Constabulary.

Studies of both paid employees and to a lesser extent volunteers have found evidence to support the hypothesised relationships between lack of job resources and disengagement and high job demands and emotional exhaustion (Demerouti et al. 2001; Bakker et al. 2005). However, evidence of cross-processes linking both demands and resources to exhaustion (Schaufeli and Bakker, 2004; Bakker et al. 2004) or demands to both the energetic and demotivating processes (Cox et al. 2010) has also been found. The work of Cox et al. (2010) is important because their study examined the health impairment processes within a sample of Australian HIV/AIDS volunteers. This demonstrates the inconsistencies that may exist between paid and unpaid work and the need to further consider the transferability of these theoretical propositions. The differential results indicate that volunteers may both appraise their work environments and be affected by them differently from paid employees.

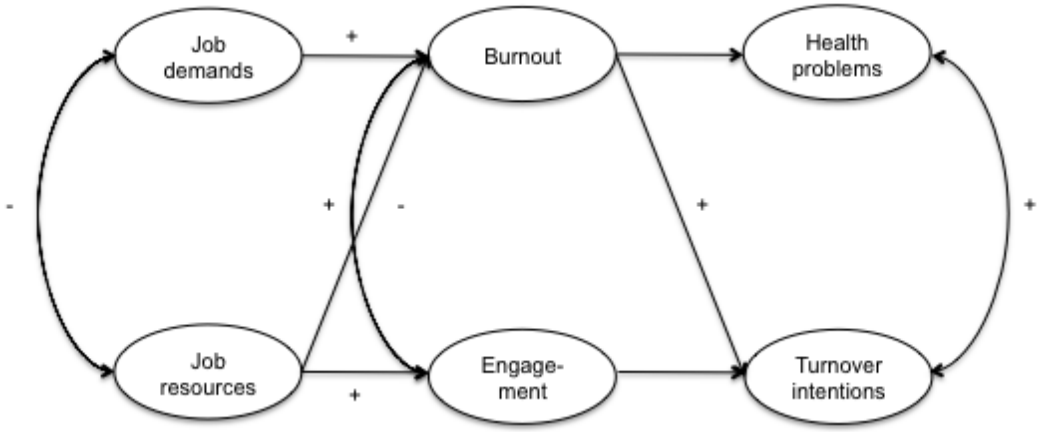
One of the limitations associated with the original JD-R model was the focus its stress and burnout. The model is restricted to explaining only the negative aspects of work such as exhaustion and disengagement, which may seem counterintuitive to the study non-obligatory helping behaviour. Models that focus primarily upon pathology, or lack of, are therefore potentially insufficient in providing a complete understanding of the issues associated with volunteer well-being and retention (Mellor et al. 2009). By concentrating on the negative factors that erode retention rates there exists a danger that voluntary sector studies will fail to adequately understand the processes that motivate and retain volunteers. Volunteering is associated with various health benefits (Thiots and Hewitt, 2001; Wilson and Musick, 2000) and Brudney and Meijs (2009) write that volunteer energy may be renewable through positive organisational experiences. Recognising these limitations, work began to extend the theoretical propositions of the JD-R model to capture the positive aspects of paid work associated with engagement, motivation and well-being (Schaufeli and Bakker, 2004). The expansion of the JD-R model reflected a growing interest in the study of wellness, optimal functioning and enhanced civic engagement (Seligman and Csikszentmihalyi, 2000), which is of clear relevance to the study of volunteering.

2.2.4.1The revised JD-R model

Schaufeli and Bakker (2004) introduced an additional path into the JD-R model demonstrating motivational potential of job resources. The motivational pathway of the JD-R model therefore sought to examine how job resources might be instrumental in bolstering outcomes through a positive sense of work-related well-being known as work engagement (figure 2.7). Identifying with the original propositions of the JD-R model (Demerouti et al. 2001), Schaufeli and Bakker (2004) proposed that job resources boost both intrinsic motivation providing, opportunities for individuals to learn and develop, as well extrinsic motivation facilitating the satisfaction of basic human needs (Ryan and Deci, 2000). Job resources stimulate a positive sense of work related well-

being through either the satisfaction of basic needs or achievement of work objectives which, in turn, triggers positive organisational outcomes. The energetic process was also reconceptualised to highlight the demotivating nature of job demands through disengagement. Schaufeli and Bakker (2004) therefore combined Hockey's (1997) strain (exhaustion) and passive (disengagement) coping models under a single process. Therefore under the revised model burnout was considered as a single factor. Whilst this reflects the close empirical relationship found between exhaustion and disengagement, subsequent research has shown how they have different relationships with various outcomes (Cox et al. 2010), suggesting that they should be analysed separately.

Figure 2.7: The revised JD-R model



Source: Schaufeli and Bakker (2004: 297)

The inclusion of the motivational pathway makes the JD-R model a relevant model to study the organisational and managerial factors associated with retention within the Special Constabulary. It recognises the potential for stress within policing, but also enables an appreciation of the various factors that might motivate individuals to continue volunteering. As it focuses on aspects of the work environment it therefore provides organisations, such as the Special Constabulary, with information on variables that it may manipulate (e.g. provision of feedback or training) to enhance retention. Although the JD-R model has been applied within paid police contexts, it remains

unclear how the health impairment and motivational processes function within unpaid police work. An examination of the JD-R framework within a UK volunteer context therefore represents an important theoretical contribution to the understanding of retention.

2.2.4.2 Evidence for the JD-R model in paid work contexts

There is substantial empirical evidence to support the JD-R model across a range of occupations including call centre workers (Bakker et al. 2003b), teachers (Bakker et al. 2005; Hakanen et al. 2006), nursing and dentistry (Mauno et al. 2007; Hakanen et al. 2008), white-collar and blue-collar workers (Schaufeli and Bakker, 2004; Bakker et al. 2003a) and policing (Richardsen et al. 2006; Martinussen et al. 2007). Whilst the JD-R model has also been tested in various countries (Demerouti et al. 2001; Salanova et al. 2005), simultaneous cross-nation analysis has also supported the invariance of the JD-R model (Llorens et al. 2006). Some studies have focussed solely on the health impairment process of the JD-R model (e.g. Bakker et al. 2008) whilst others have concentrated on the motivational pathway (e.g. De Brain and Roodt, 2011). Perhaps most importantly for the current research has been the success of the JD-R model in predicting positive outcomes such as reduced absenteeism and turnover intentions in employees (Demerouti et al. 2001; Bakker et al. 2003a; 2003b).

Studies have found support for the dual processes of the JD-R model (Bakker et al. 2003b), as well as presenting evidence of cross-linked processes between burnout and turnover intentions (Schaufeli and Bakker, 2004). The impact of various job demands and resources has also been supported. For instance Xanthopoulou et al. (2007a) demonstrated how personal resources mediated the relationship between job resources and engagement/exhaustion, as well as influencing the perception of job resources. Job resources have been found to buffer the effects of demands (Bakker et al. 2005; Xanthopoulou et al. 2007b), suggesting interactions between job

characteristics. Job resources are also thought to be more beneficial in contexts characterised by the presence of high job demands (Bakker et al. 2007). Resources are therefore an important aspect of work that help employees to deal with demands (Hakanen et al. 2005) as well as influence proactive behaviour including the desire for job challenge and problem solving (Salanova and Schaufeli, 2008).

However, inconsistent relationships have also been found between job demands and engagement (Van den Broeck et al. 2010). Recent work has sought to understand the differential relationship between certain job demands and outcomes via the challenge stressor/hindrance stressor framework (Cavanaugh et al. 2000). Although Schaufeli and Bakker (2004) argued that job demands were not important when predicting work engagement, meta-analysis has found that by distinguishing between different types of job demands meaningful conclusions could be made about these relationships (LePine et al. 2005; Crawford et al. 2010). Challenge stressors are typically those demands that, whilst appraised as stressful, have the potential to promote mastery and personal growth. Challenge stressors include characteristics such as workload, time pressure and responsibility, and provide opportunities for learning and the demonstration of competence (Crawford et al. 2010). Hindrance stressors are those demands that prevent individual's form achieving their goals, limiting personal growth and learning (Crawford et al. 2010). Hindrance stressors such as role ambiguity constrain employees, placing barriers between individuals' and their work objectives that unnecessarily hinder progress (Crawford et al. 2010). These represent exciting new developments within the JD-R model that have particular relevance to volunteering. For instance, whilst Jamison (2003) found positive links between job challenge and retention, her research did not uncover the underlying processes responsible for this relationship. The importance of job challenge is therefore not fully understood within volunteerism and it remains unclear whether it is purely motivational, associated with health impairment or both. Further understanding the nature of job challenge within the

Special Constabulary represents an important theoretical contribution of this thesis towards understanding volunteer motivation and retention.

The theoretical propositions of the JD-R model have also been tested within samples of police officers. For instance, Richardsen et al. (2006) found only partial support for the JD-R model. Whilst job demands and resources exhibited the expected direction of correlations with cynicism and work engagement, there was no evidence to support the mediated effect of cynicism on outcome variables. Richardsen et al. (2006) did however find evidence of partial mediation between job resources, organisational commitment and self-efficacy through work engagement. The authors suggested that the strong relationships found between engagement, commitment and self-efficacy indicated that the positive and rewarding aspects of the police work may compensate for some of the more demanding and stressful aspects of the profession. In later research Martinussen et al. (2007) found evidence of cross-processes in which job demands (work-family pressure) and resources (lack of support) predicted burnout, whilst burnout was related to outcome measures such as job satisfaction, organisational commitment and the intention to quit. Grawitch et al. (2010) found that role identification served as a psychological resource reducing the impact of community demands on emotional exhaustion. Although there is a vast literature base examining the well-being of police officers (Abdollahi, 2002), few police-based studies have employed the theoretical framework of the JD-R model and its propositions remain untested within a volunteer police setting such as the Special Constabulary. This represents an important theoretical gap addressed by this thesis.

2.2.4.3 Longitudinal evidence

Whilst there has been much research examining the JD-R model within paid work contexts, relatively few studies have examined its underpinnings using longitudinal data. Longitudinal examinations of the JD-R model are important because they enable

the direction of causality to be established and also providing the ability to control for third variables that might influence the relationships among predictors and outcomes (Zapf et al. 1996; de Lange et al. 2003).

Mauno et al.'s (2007) two-year study found that job demands and resources predicted work engagement in the expected directions however, once prior levels of engagement were controlled for many of the previously found relationships became non-significant. Hakanen et al. (2008) conducted a three-year cross-lagged study finding longitudinal support for both the dual and cross-processes of the JD-R model. Airila et al.'s (2014) two-wave 10-year longitudinal analysis of the motivational process of the JD-R model found that work engagement measured at T2 fully mediated the relationship between job and personal resources at T1 and work ability at T2. Finally Boyd et al.'s (2011) three-year study found evidence of causal, but not reverse causal, relationships between job demands, resources, psychological strain and organisational commitment.

Reverse causal effects highlight the potential for bidirectional relationships between variables and Boyd et al. (2011) indicate that such relationships are similar to the concepts of loss and gain cycles proposed by Hobfoll and Shirom (2000). Loss cycles occur when individuals lack access to sufficient levels of resources, meaning that exposure to job demands reduces the ability of individuals to offset any future resources losses (Hobfoll and Shirom, 2000). Those with insufficient job resources may 'drift' into less desirable jobs, often with even fewer resources and higher demands (Zapf et al. 1996). As individuals exert additional energy to cope with their additional job demands they experience exhaustion (Demerouti et al. 2004). Zapf et al. (1996) also propose a 'perceptual hypothesis', suggesting that increased demands and reduced energy levels lead individuals to stronger negative perceptions of the work environment whilst in reality there has been no change (Boyd et al. 2011). For instance, Bakker et al.'s (2000) five-year longitudinal study found evidence that long-

term exposure to patient demands lead to a perception of inequality or a lack of reciprocity in patient-doctor relations that cause burnout within general practitioners.

To date, the only longitudinal research conducted with a volunteer context has examined the buffering hypothesis of the JD-R model, therefore examining for interaction effects between job demands, resources, burnout and connectedness (Huynh et al. 2013). As such there is currently no longitudinal evidence to support the direct causal or reverse causal effects of the well-being on outcome such as retention within volunteer samples. This represents a substantial gap in knowledge that this thesis aims to address.

2.2.4.4 JD-R model in volunteer samples

There is a small body of literature supporting a number of the theoretical propositions of the JD-R model within non-UK, non-police volunteer contexts. Evidence to support the health impairment and motivational processes of volunteer work in firefighting (Klemasz and Tuckey, 2007), ambulance work (Lewig et al. 2007) and palliative care (Cox et al. 2010; Huynh et al. 2012a; 2012c) has been presented. The majority of these studies have considered the impact of the health impairment process through use of the Maslach Burnout Inventory (MBI; Maslach and Jackson, 1981). However, as previously stated, there are conceptual and psychometric issues with this scale (Demerouti et al. 2001) and the use of alternative burnout indices such as the Oldenburg Burnout Inventory (Demerouti et al. 2010) has the potential to add to the theoretical understanding of burnout within the volunteer context. As occupational stress is considered an unfortunate but inevitable aspect of police work (Hart and Cotton, 2003), there exists a need to understand these issues within Special Constabulary. The presence of burnout within policing has a number of important individual and organisational-level implications that are considered later in this literature review. With policing being a higher-risk volunteer role, there also exists a need to

understand the motivational processes that encourage volunteers to continue. Identifying the factors associated with wellness and retention in more demanding contexts is therefore an important contribution of this thesis to voluntary sector knowledge.

Despite previous research, only a limited number of potential job resources, demands and outcomes have been considered. For instance, whilst volunteer work is conducted between paid work and family time it remains untested whether such role conflicts exist within volunteer work. Furthermore, the unique socialisation processes within the police (Van Maanen, 1975; Reiner, 2010) have resulted in fractious relationships between regular officers and specials (Leon, 1991). Whilst this is known to be a source of dissatisfaction within the Special Constabulary it has yet to be established whether potentially poor working relationships between regular officers and specials leads to reduced retention. In terms of job resources, studies have examined the provision of planned training to volunteers (e.g. Huynh et al. 2012c) but not whether other forms such as on-the-job learning may be beneficial to retention. As specials complete their initial and on-going training whilst volunteering, on-the-job learning may be an important volunteer resource. Similarly, it remains unclear whether volunteers are motivated by job challenge or whether this is detrimental within potentially stressful volunteer contexts. Acknowledging previous research demonstrating counterintuitive results (Omoto and Snyder, 1995), it is important to determine the impact of different sources of social support such as those from within the organisation (e.g. paid employees, supervisors, co-volunteers) or outside (e.g. family).

2.3 Limitations of existing research

Whilst this new direction of volunteer-based research is promising, there remain many unanswered questions. The application of the JD-R model in volunteer contexts is limited to a small number of studies all of which have been conducted within Australia.

As such there are no European-based studies to support the theoretical positions of the JD-R model in either a volunteer or policing context. There are however important differences between Australia and the UK in terms of the role and scope of volunteers within emergency response. Unlike most OECD countries, emergency response in Australia is particularly reliant upon volunteers for services such as firefighting (McLennan and Birch, 2005). Therefore volunteer retention within Australia has received a great deal of academic and practitioner attention (Rice and Fallon, 2011). It is therefore important to expand our understanding of the health impairment and motivational processes of the JD-R model into European contexts and examine different volunteer roles such as police volunteering.

Unlike other voluntary sector contexts, including those assessed in previous research, policing is an occupation in which individuals can be placed into adversarial or confrontational situations with members of the public. This distinction highlights the importance of conduct research within the Special Constabulary, because of the impact that burnout has been shown to have on officer interactions and levels of reciprocity with members of the public (Kop et al. 1999). As advocates of the service, specials are said to represent the link between the public and the police. Despite these claims there is little empirical evidence to demonstrate how this relationship may function. This has obvious implications at the individual and organisational level, as well as for the broader relationships between the voluntary sector, civil society and the state. Conceptually, Special Constabulary volunteerism is a form of volunteering located within the borderlands between the state and civil society (Deakin, 2001) however, examinations of volunteering within statutory organisations such as the Special Constabulary are rare (Rochester et al. 2010).

As research of this nature is in its infancy, only a limited number of variables have been tested. Clearly the selection of job resources and demands is dependent upon the

context under appraisal, therefore potential variables will need to be carefully selected to ensure they accurately reflect the context under investigation. At present few voluntary sector studies justify their variable choices (see Chapter 4). Furthermore, there is a need to consider the impact of job resources and demands on alternative outcomes such as organisational commitment, which has yet to be examined within a JD-R study of volunteers. The variables associated with volunteer organisational commitment and job satisfaction are poorly understood volunteerism (Wilson, 2000; Wilson, 2012) and it is vital that scholarly work of this nature be developed within non-profit contexts, rather than relying on the empirical findings from studies of paid workers (Cnaan and Casico, 1998) to inform the management of volunteers. Consequently, in addition to understanding the impact of job characteristics on retention this research will also add to the existing volunteer literature by examining their impact on volunteer job satisfaction and affective and normative organisational commitment.

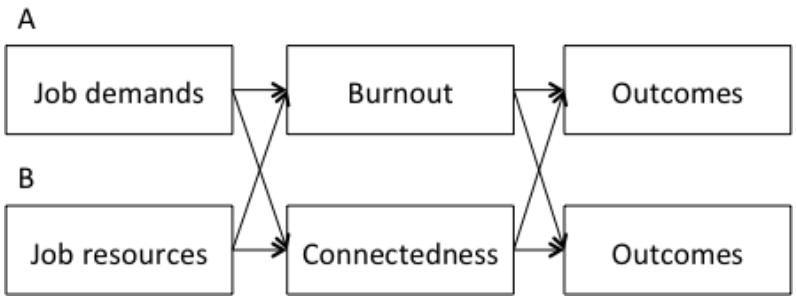
A study of health and well-being within the Special Constabulary is also warranted from a practical standpoint. Such organisations have a duty of care towards their volunteers and need to understand how the work they are asked to conduct impacts upon their well-being. High wastage rates have been a longstanding issue within the Special Constabulary (Mirrlees-Black and Byron, 1994; Berman, 2013), which has obvious financial and operational implications. Brudney and Meijs (2009) suggest that the continuous recruitment resulting from volunteer dropout is likely to have a longstanding impact on the commons pool of volunteer resource. Tackling dropout by ensuring that volunteer-involving organisations both minimise the exposure to job demands and increase the level of resources available to volunteers may therefore have wider implications for overall health of the voluntary sector.

Another substantial gap in the current voluntary sector research base has been the reliance on self-reported survey data (e.g. Lewig et al. 2007; Cox et al. 2010). However, research from paid work contexts suggests that health and well-being can have a profound impact on in-role performance (Bakker et al. 2004). The lack of objective performance data available to voluntary sector studies has meant that similar research has been challenging to conduct. One of the important contributions of this research will be the ability to link individual-level survey data to self-reported volunteer activity data held by the participating police forces. This analysis will enable an examination of the relationships between health and well-being and activities conducted by specials at a level not previously possible.

2.4 Conclusion

This literature review has identified the importance of organisational variables in relation to outcomes such as satisfaction, commitment and retention through the theoretical framework provided by the JD-R model. Figure 2.8 represents a simplistic representation of the mediated relationships associated with the health impairment and motivational process of the JD-R model considered in this research.

Figure 2.8: Simple Special Constabulary JD-R model



Panel A: Health impairment process; panel B: motivational pathway

Section 2.5 introduces the two mediator variables used in this research. A previously unexamined conceptualisation of burnout within volunteerism is presented, whilst the potential of a new volunteer motivation variable within policing (organisational connectedness) is also introduced. These two variables are proposed as potential mediators between job demands/resources and outcomes that will be used to provide insights into the underlying health impairment and motivational processes of the JD-R model. The following section explores both burnout and connectedness in more detail, including their relevance to the Special Constabulary.

2.5 Burnout and Connectedness

2.5.1 Burnout

Interest in burnout developed during the 1960s at a time during which the professional authority of many occupations, including policing, was being questioned by the recipients or clients of the services being provided (Schaufeli et al. 2009b). As the demands within these service-type occupations increased, so did the discrepancy between the degree of effort invested by professionals and their perceptions of the rewards received. This perceived lack of reciprocity was a central feature driving the study of burnout (Schaufeli, 2006). Despite being more commonly associated with paid work, the earliest research citing the concept of burnout was actually made in reference to the experiences of volunteers. Freudenberger (1975) first used the term ‘burn-out’ to describe the processes by which volunteers reported depleted levels of energy, motivation and commitment (Schaufeli and Enzmann, 1998). Similar patterns of behaviour were also being identified within studies of police officers.

Skolnick (1966) suggests that as part of their involvement within policing, officers develop a ‘working personality’. This is defined by a sense of social isolation, political and moral conservatism, pragmatism and machismo resulting from the need to

maintain constant authority, efficiency and suspicion. This 'cop culture' is understood to have a profound impact on the attitudes and behaviours of police officers (Reiner, 2010). Studies have also shown how young and inexperienced police recruits develop cynical attitudes towards their work and the people they help following close working contact with more experienced officers. For instance, Van Maanen (1975) found that new recruits quickly developed the same negative and cynical attitudes of more experienced officers and that this was related to reduced motivation and commitment. Neiderhoffer (1967) developed a 20-item police cynicism scale to test a number of hypotheses related to the attitudinal change within recruits, suggesting a process in which cynical views rapidly develop after deployment. Although subsequent research has failed to replicate either the factor structure of Neiderhoffer's cynicism scale, or support his initial hypotheses (e.g. Regoli & Poole, 1979; Regoli et al. 1990), this early research demonstrated the potential negative impact of police work on the individual. Recognising the limitations of Neiderhoffer's (1967) initial conceptualisation of police cynicism, Langworthy (1987) suggests the use of alternative validated burnout scales, such as the Maslach Burnout Inventory (MBI).

The MBI has become one of the most widely implemented measures of burnout (Schaufeli et al. 2009b). Studies of paid workers suggest that the onset of burnout is related to factors such as absenteeism (Parker and Kulik, 1995; Bakker et al. 2003; Schaufeli et al. 2009b), intention to leave (Maslach and Jackson, 1981; Geurts et al. 1998) and reduced performance (Taris, 2006; Bakker et al. 2008). In addition to behavioural, attitudinal and organisational-level issues, burnout has also been found to correlate with various psychological (e.g. depression and anxiety) and physical (e.g. fatigue, cardio-vascular disease) complaints (Griffiths, 2003). Whilst this study will use the Oldenburg Burnout Inventory (OLBI), it is first important to briefly consider the theoretical underpinnings of the MBI as its two core functions (exhaustion and cynicism/disengagement) are reflected within the OLBI.

2.5.2 The Maslach Burnout Inventory

Initially adopting a qualitative approach, Maslach (1976) examined the experiences of human service professionals who reported feelings of emotional exhaustion as well as the development of negative opinions towards clients and service users. This, "emotional turmoil", led individuals to question their *professional competence* which, when combined with *exhaustion* and *negative opinions towards service uses,* provided the foundations for the three components that later went on to characterise the concept of burnout (Schaufeli et al. 2009b: 206). Quantitative work then operationalised these components of burnout: emotional exhaustion, depersonalisation and reduced personal accomplishment, into valid and reliable scales, with US-based police officers forming part of the initial sample used (Maslach and Jackson, 1981).

Emotional exhaustion reflects the stress dimension of burnout and plays an important role in influencing the relationship between the individual, the people they work with and the work itself (Maslach et al. 2001). Exhaustion is characterised by frustration, tension and fatigue (Maslach and Jackson, 1981). Exhausted individuals are constantly reminded of the obligation they have towards their service users and may therefore engage in cognitive and emotional distancing behaviours, such as detached concern, as a means to protect themselves from the demands of their work (Maslach et al. 2001). Depersonalisation represents the interpersonal dimension of burnout, reflecting the negative, callous and dehumanising attitudes of workers towards their recipients, as well as a detached response to various aspects of an individual's role (Maslach and Leiter, 2008). Reduced personal accomplishment refers to the self-evaluation component of burnout and is related to feelings of incompetence and reduced achievement and productivity (Maslach and Leiter, 2008).

Depersonalisation is considered to be an immediate response to exhaustion, therefore these two components of burnout are understood to be related to each other (Maslach

et al. 2001). Meta-analysis has shown that reduced professional efficacy develops independently of both exhaustion and depersonalisation, whilst each facet of burnout is differentially related to various outcome measures (Lee and Ashforth, 1996; Schutte et al. 2000). For instance, whilst exhaustion and depersonalisation were both strongly related to turnover intentions and organisational commitment in paid work, professional efficacy was not (Lee and Ashforth, 1996). Professional efficacy has been found to correlate more strongly with work engagement than burnout (Schaufeli et al. 2008) leading to the suggestion that it may represent more of a personality trait (Coders and Doughty, 1993; Shirom, 2003). Subsequently, burnout has been conceptualised as, "fatigue and withdrawal, perhaps supplemented with lack of efficacy" (Schaufeli and Taris, 2005: 261). A similar view is held by Demerouti et al. (2010) who argue, "emotional exhaustion and depersonalization constitute a syndrome, which is loosely related to personal accomplishment". Consequently there are concerns over the three-factor burnout structure (Lee and Ashforth, 1996; Coders and Doughty, 1993; Shirom, 2003), leading some researchers to exclude professional efficacy from their scales (Demerouti et al. 2010) or studies (Cox et al. 2010).

In addition to the concerns regarding its underlying factor structure, other research has questioned the psychometric properties of the MBI and the phrasing of the items used to examine burnout (Demerouti et al. 2003; Qiao and Schaufeli, 2011). A number of studies have critiqued the item phrasing of the MBI suggesting, that the negatively framed exhaustion and depersonalisation subscales and positively framed personal accomplishment items leads to artificial factor solutions (Lee and Ashforth, 1990; Bouman et al. 2002). For instance the use of subscales comprised of entirely unidirectional items may lead to artificial factor solutions (Doty and Glick, 1998) or to erroneous correlations with other constructs (Demerouti et al. 2010). Such scales also increase the risk of response bias (Williams et al. 2004). Questions relating to the factor structure of burnout and concerns over its measurement indices have led

researchers to develop and alternative conceptualisations of burnout such as the Copenhagen Burnout Inventory (CBI; Kristensen et al. 2005), the Bergen Burnout Indicator (BBI; the Matthiesen and Dyregrov, 1992; Salmela-Aro et al. 2011) and the Oldenburg Burnout Inventory (OLBI; Demerouti et al. 2010). These will now briefly be considered.

2.5.3 Alternatives to the MBI

The CBI focuses on three sources of burnout: personal burnout, work-related burnout and client related burnout (Kristensen et al. 2005). Unlike the MBI conceptualisation of burnout, the CBI concentrates primarily upon the exhaustion and does not address depersonalisation/cynicism. However, there is strong prior evidence to suggest that the development of cynical attitudes is, to some extent, an important aspect of police burnout (Neiderhoffer, 1967; Maslach and Jackson, 1981) and the evidence presented above suggests that depersonalisation is an immediate response to exhaustion. With these concerns in mind, the CBI was not considered appropriate for the study of burnout within the Special Constabulary. The BBI holds a similar view of burnout to that of the MBI, addressing feelings of exhaustion, cynicism and inadequacy – comparable to reduced efficacy (Matthiesen and Dyregrov, 1992). In this sense the BBI addresses the emotional, cognitive and behavioural aspects of burnout (Salmela-Aro et al. 2011). However, each of the underlying burnout scales within the BBI is framed within the same direction, leaving it open the same psychometric criticisms levelled at the MBI. The OLBI (Demerouti et al. 2003; Demerouti et al. 2010) overcomes the conceptual difficulties associated with MBI burnout by focussing on the two core components (exhaustion and cynicism), whilst it also addresses concerns over the structure of the measurement indices through the use of both positively and negatively framed items. This alternative perspective has the potential to offer new insights into the theory of volunteer burnout that will be considered.

2.5.4 Dimensionality of the Oldenburg Burnout Inventory

The OLBI views burnout as the gradual erosion of a positive state of work-related engagement. However, whilst Demerouti et al. (2010) view work engagement to be the conceptual opposite of burnout there remains debate as to how exactly this should be measured (Maslach and Leiter, 1997; Schaufeli et al. 2002a; 2002b; González-Romá et al. 2006; Bakker et al. 2011b; Schaufeli and Salanova, 2011). Maslach and Leiter (1997) suggest that burnout represents the negative antipode of work engagement and can therefore be measured by reverse coding the MBI subscales. Under this conceptualisation burnout reflects a process by which, "energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness" (Maslach and Leiter, 1997: 24). However Bakker et al. (2011b) point out that that the absence of burnout does not necessarily equate to a state of engagement. The inability to make such a claim is predominetaly related to the psychometric properties of the MBI, with both the exhaustion and cynicism scales entirely comprised of negatively phrased items and the professional efficacy scale positively phrased. Alternatively, Schaufeli et al. (2002a; 2002b) suggest that both work engagement and burnout have entirely different underlying structures. Whilst burnout is characterised by low activation (exhaustion), low identification (cynicism) and reduced personal accomplishment, engagement reflects a state of high activation (vigour), identification (dedication) and absorption (Schaufeli et al. 2002a; 2002b). Whereas activation (exhaustion-vigour) and identification (cynicism-dedication) may serve as conceptual opposites, feelings of reduced personal accomplishment and absorption are clearly not. A number of studies have therefore questioned the role of professional accomplishment within burnout (Coders and Dougherty, 1993; Lee and Ashforth, 1996; Schaufeli and Taris, 2005), as well as absorption within work engagement (Schaufeli et al. 2008; Bakker et al. 2011a). Thus the three-factor structure of the Utrecht Work Engagement Scale (UWES;

Schaufeli et al. 2002a; 2002b) used to measure engagement renders the Maslach and Leiter (1997) conceptualisation of the burnout-engagement divide untenable.

The OLBI provides an alternative perspective that seeks to overcome these concerns, measuring only the two core components thought to represent the burnout-work engagement continuum. Supporting this view Bakker and Oerlemans (2011) view burnout as consisting of two interrelated psychological states based on varying degrees of activation and pleasure. The OLBI builds upon this perspective, whilst also addressing the psychometric difficulties of the MBI by including both positively and negatively phrased items referring to two ends of both an energy (exhaustion-vigour) and identification (dedication-disengagement) continuum. For instance the OLBI contains an equal number of positively and negatively phrased items capturing both ends of the energy (exhaustion-vigour) and identification (disengagement-dedication) dimensions. Recoding enables the investigation of either burnout or work engagement depending on the goal of the study. Studies have used parametric and non-parametric analysis to support the existence of these two bipolar dimensions (González-Romá et al. 2006; Demerouti et al. 2010), whilst multi-trait-multi-method (MTMM) techniques have confirmed the convergent validity of the OLBI and MBI (Demerouti et al. 2003; Halbesleben and Demerouti, 2005). There are also important differences in terms of the composition of the energy (exhaustion-vigour) and identification (disengagement-dedication) components that may make it potentially more apt for a study of burnout in volunteerism. These important differences, as well as their theoretical impact on the study of Special Constabulary volunteerism, are now considered.

2.5.5 OLBI exhaustion

Unlike the MBI, OLBI exhaustion captures not only affective but also the physical and cognitive strain resulting from long-term exposure to job demands (Demerouti et al. 2010). OLBI exhaustion is therefore more likely than the MBI conceptualisation to be

applicable to volunteers in the Special Constabulary as this form of volunteering incorporates not only emotional (e.g. traumatic events), but also physical (e.g. foot patrol) and cognitive (e.g. knowledge acquisition and processing, decision making) demands. For instance, in addition to the emotional strain associated with the unique nature of police work, such as assisting victims of crime, dealing with violent crime, anti-social behaviour and 'cop culture', specials typically conduct their volunteering in between paid work and time that could be spent with families or on other leisure activities. The minimum monthly commitment of 16 hours, which often involves weekend and evening work and focus on foot patrol duties to provide a visual reassurance to local communities, indicates the potential physical demands placed upon volunteers. These, in conjunction with other paid work, may lead to exhaustion. Police work can also involve substantial cognitive demands, such as acquiring and processing knowledge in challenging situations, making decisions under pressure sometimes with incomplete information, ensuring that legal processes are followed or providing assistance and advice to members of the public including victims of crime. The OLBI therefore provides a more rounded conceptualisation of burnout that is likely to capture more fully the energetic processes associated with Special Constabulary volunteerism.

2.5.6 OLBI disengagement

The OLBI also provides an alternative conceptualisation of cynicism or disengagement, covering the ways in which individuals distance themselves from their work in general, their work object and content (Demerouti et al. 2010). The OLBI therefore covers not only distancing behaviours directed towards clients, (e.g. members of the public) but also the relationship an individual has with their job, indicating their willingness to remain in the same occupation (Demerouti et al. 2010). As such OLBI disengagement reflects both the incapacity and unwillingness to work (Schaufeli and Taris, 2005). Although distancing directed towards members of the public may have damaging

implications for the relationship between the police, individual officers and the communities they serve (Kop and Euwema, 2001), it is equally important to understand the relationship between volunteers and their work more generally. Specials typically spend more of their time in non-confrontational, community engagement roles (Mirrlees-Black and Byron, 1994), therefore client distancing may be an important but perhaps less prominent issue. However, research suggests that specials sometimes view their work as mundane or uninteresting (Mirrlees-Black and Byron, 1994; NPIA, 2010a). Therefore a broader conceptualisation of disengagement that covers not only depersonalisation directed towards clients (civilians), but also disengagement from the work in general may more fully capture the distancing behaviours associated with Special Constabulary work.

All studies of volunteer burnout that could be identified have utilised the MBI to measure the concept therefore the theoretical propositions of the OLBI have yet to be examined within a voluntary sector context. However, it is argued here that the OLBI's alternative conceptualisation of burnout can offer new theoretical insights into volunteer and police burnout that extend our understanding of well-being. The following sections review the research examining burnout within police work and consider its implications for the Special Constabulary.

2.5.7 Police burnout

Although it has been suggested that police work is no more stressful than other occupations (Schaufeli and Enzmann, 1998), others argue that occupational stress is an unfortunate but inevitable aspect of police work (Hart and Cotton, 2003). A comparative study of 26 occupations conducted in Britain found that police officers scored lower than average on physical health, psychological well-being and job satisfaction (Johnson, 2005). Exposure to traumatic situations involving violence and death, as well as the need to deal with victims of crime has been linked to the

experience of distress within police officers (Brown et al. 1999). However, despite the operational hazards associated with police work, UK, US and Dutch research indicates that it is the organisational and managerial aspects of the role that are perceived to be the more significant cause of stress (Brown and Campbell, 1990; Biggam et al. 1997; Kop et al. 1999, Shane, 2010). These studies each identified a range of prevalent organisational stressors, including staff shortages, a lack of resources, time pressure, a lack of consultation, poor communication, bad management, shift work, work-family conflict, a lack of support and role ambiguity. Importantly however, despite these occupational risks, there is a paucity of research examining their within UK-based police work (Houdmont et al. 2012).

Studies of police burnout in non-UK contexts suggest that officers may experience a specific burnout profile. For instance Kop et al. (1999) found that Dutch police officers recorded relatively low levels of exhaustion, average levels of depersonalisation and high levels of personal accomplishment. Hawkins (2001) found a similar pattern of exhaustion and depersonalisation within US officers. However, Schaufeli and Enzmann (1998) found the opposite pattern, suggesting that socialisation processes within the police may be responsible for generating the higher levels of depersonalisation found in their study. Kurtz (2008) suggests that the experience of burnout is embedded within the gender structures and internal processes of the police, rather than being a response to stress. Differences in the appraisal of stress have been observed between male and female officers (McCarty et al. 2007). Other studies have found no such differences, or have suggested that female officers may be more effective in alleviating the causes of strain as they are better able to activate co-worker support (Burke et al. 2006; Gätcher et al. 2011). Although burnout remains unexamined within the special Constabulary, studies suggest that regular officers often exhibit negative attitudes towards specials that may influence the onset on burnout and limit the amount of social support available (Gill and Mawby, 1990a; 1990b; Mirrlees-Black and Byron, 1994).

Whitaker (1979) suggests that regular officers may be suspicious of individuals who offer to do police work for free, whilst Leon (1991) indicates that for many regular officers, the volunteer nature of special constable offends the sense of 'police professionalism' held by regular officers. The negative attitude of regulars towards specials (Gill and Mawby 1990a; 1990b; Mirrlees-Black and Byron, 1994) has been related to volunteer dropout within the Special Constabulary (Gaston and Alexander, 2001). Similarly, Huynh et al. (2012c) found a significant relationship between their unpublished conflict with paid staff scale and MBI exhaustion however, they did not examine the impact this job demand may have had on depersonalisation (disengagement). As disengagement relates to the interpersonal dimension of burnout, it is important to understand whether the attitude of regular officers towards specials results in distancing or withdrawal behaviours.

Supporting the notion of job characteristic-based studies of well-being and retention within the police, Euwema et al. (2004) found that an imbalance between job demands and rewards predicted burnout. Similar links between job demands, burnout, physical and psychological health, suicidal ideation, job satisfaction, organisational commitment and turnover intentions have been uncovered in studies of Norwegian police officers (Burke and Mikkelsen, 2006; 2007; Martinussen et al. 2007). Vuorensyrjä and Mälkiä's (2011) suggest that the relationship between various stressors and police burnout is non-linear thus possibly reflecting Neiderhoffer's (1967) earlier conceptualisation of police cynicism in which a rapid onset is accompanied by a levelling off process.

The stresses associated with police work have also been found to spill-over into other domains such as family life. Norwegian studies have confirmed the link between demands such as work-family conflict and burnout in police work (Mikkelsen and Burke, 2004; Burke and Mikkelsen, 2006; Martinussen et al. 2007). Australian-based research has also demonstrated complex reciprocal and cross-linked effects between

burnout and work-family conflict (Hall et al. 2010). Gätcher et al. (2011) suggest that higher levels of social capital can help reduce levels of burnout and strain, including the conflict between police work and family life. Officers who experience emotionally charged interactions with civilians often report a discrepancy between the emotions they are required to display as part of their job and their true emotions. Therefore, the experience of emotional dissonance has been linked to the onset of exhaustion and cynicism, as well as having a negative influence on in-role performance (Bakker and Heuven, 2006). Burnout has also been linked to increasingly favourable attitudes towards the use of violence and actual use of violence during the course of an officer's duties (Kop et al. 1999; Kop and Euwema, 2001; Burke and Mikkelsen, 2005). Officers are more likely to exhibit violent behaviour towards civilians when they view them as impersonal objects characterised by depersonalisation, whilst exhaustion may result in officers being less likely to use social skills to resolve problems and therefore more likely to revert to force (Burke and Mikkelsen, 2006). Alternatively, it has been demonstrated how burnout can be associated with decreased displays of dominance behaviour during conflict situations, resulting in more effective outcomes and enhanced civilian satisfaction with the police (Euwema et al. 2004). Finally, there is evidence to suggest that burnout impacts upon the level of perceived reciprocity between the investments made by police officers and their views of the general public, colleagues and the police force itself (Kop et al. 1999). The concept of reciprocity is an important aspect of social exchange theory (Bove et al. 2009), achieved when an individual perceives that their interpersonal investments are proportional to either the investments of others or the outcomes received (Bakker et al. 2000). Kop et al. (1999) demonstrated that a perceived lack of reciprocity between officers and civilians was associated with the depersonalisation aspect of burnout, whilst a lack of reciprocity with both the organisation and colleagues was related to exhaustion. Longitudinal analysis has confirmed similar relationships in studies of general practitioners (Bakker et al. 2000). The relationship between specials and the public is an important consideration

for senior officers within the police owing to the important conceptual link specials are said to play between the police and the public they serve. Understanding the relationship between reciprocity and burnout is an important yet unexamined aspect of Special Constabulary volunteerism. It may provide a theoretical means through which forces can appraise the health of the relationship between specials and the public. This thesis will therefore consider the concept of reciprocity, making an important theoretical contribution towards understanding the relationship between the Special Constabulary and the public.

2.5.8 Volunteer burnout research

Prior research examining the concept of burnout in volunteer contexts has predominately focussed on the experiences of volunteers who give their time to HIV/AIDS charities. For instance, Nesbit et al. (1996) found that the sensation of grief associated with this emotionally demanding form of volunteer work was unrelated to the experience of burnout. Ross et al. (1999) found that volunteer stress in HIV/AIDS volunteering was related to turnover, with those choosing to leaving their volunteer roles exhibiting significantly higher levels of depersonalisation than those who stayed. The early identification of burnout has been cited as one important means of improving retention rates, whilst the provision of social support aimed at diminishing the consequences of burnout may be ineffective unless it also enhances the sense of personal efficacy associated with the role (Maslanka, 1996). This highlights the complex relationships between volunteerism and social support found in other studies (Omoto and Snyder, 1995; Snyder et al. 1999; Starnes and Wymer, 2001). Other research has found that the perceived benefits of volunteering may mitigate the onset of burnout. Cyr and Dowrick (1991) also found that volunteers who perceived high turnover rates within their organisations also experienced higher levels of burnout suggesting, as found in paid work contexts (Maslach et al. 2001), that burnout may be contagious.

Research also indicates that subjective dispositions may interact with burnout. Moreno-Jiménez and Hidalgo (2010) found that extrinsic volunteer motivation (e.g. career motives) was more strongly related to burnout than intrinsic motives (e.g. values and understanding). Bakker et al. (2006) reported that different personality types might be an important factor moderating the impact of working experiences on burnout. There is also evidence from non-UK, non-police volunteerism contexts that burnout can be used to represent the health impairment process of the JD-R model within the studies of volunteers (Klemasz and Tuckey, 2007; Lewig et al. 2007; Cox, et al. 2010; Huynh et al. 2012; Huynh et al. 2012a). These studies have shown how demands such as role ambiguity (Cox et al. 2010), time pressure (Lewig et al. 2007), conflict with paid staff and work-home conflict (Huynh et al. 2012a) all predict higher levels of MBI burnout, as well as having an indirect effect on outcomes such as depression, health problems and the determination to continue through burnout. However, none of these studies have investigated burnout through the lens of the OLBI or within the context of police work, whilst their samples have also exclusively examined the experiences of Australian volunteers.

2.5.9 Burnout and its implications for the Special Constabulary

The studies reported above indicate the potential consequences of burnout towards the overall health and well-being of both volunteers and police officers, as well as the implications this may present for police forces. Evidence from both volunteer and police-based research suggests that job characteristics may have a substantial impact on volunteer well-being which in turn may influence outcome measures such as volunteer job satisfaction, organisational commitment and the determination to continue as a volunteer. Research of this nature is however in its infancy. Therefore this study expands the boundary conditions of both the JD-R model and the theory of burnout into a new volunteer context. With no European-based studies of this nature, this research will therefore be the first to examine the JD-R model within a European/UK volunteer

context as well as the first study to examine the JD-R model of burnout within a sample of special constables.

Studies of paid police officers highlight the significance of burnout in the relationship between officers, other members of staff and citizens. An application of the JD-R model of burnout within the Special Constabulary will provide important information concerning the well-being of special constables, as well as the underlying processes that impact upon their relationship with other individuals both within and outside of the force. Although emergency service volunteers have been found to report a sense of camaraderie towards those they work with in non-police volunteer contexts (Tuckey and Hayward, 2011), specials often report negative attitudes and a lack of cooperation from regular officers (Gill and Mawby, 1990a; 1990b; Leon, 1991; Gaston and Alexander, 2001; NPIA, 2010a). Whilst this type of issue is often reported by specials, its effect on retention has yet to be established. To further probe this issue a measure of organisational commitment will be included that examines both the affective and normative aspects of commitment (Meyer and Allen, 1997). Whilst affective commitment refers to the emotional relationship between an individual and the organisation in which they work, normative commitment signifies the pressure felt by an individual to remain within the organisation as a result of organisational socialisation. Organisational commitment has yet to be examined within the volunteer JD-R studies however, it has the potential to expand our level of understanding regarding the impact of burnout on the socialisation processes.

Studies of the Special Constabulary also indicated that family and work-related concerns are related to retention (Gaston and Alexander, 2001). Studies of paid regular officers have demonstrated how work stress can spill-over into the family domain (Hall et al. 2010). Therefore it is important to establish whether these relationships exist within the Special Constabulary. Non-work issues such as work/study and family

commitments are known to influence retention rates however, this has yet to be examined from the perspective of inter-role conflict. Similarly, despite work through employer supported policing (ESP) to develop effective partnerships between employers, their staff and the police service (NPIA, 2010b), little is known about the relationship between paid work and Special Constabulary volunteerism. This research will therefore be the first to examine whether inter-role conflict between paid work and volunteering influences retention rates.

This study also aims to examine the theoretical relationship between police volunteers and the public they serve through the concept of reciprocity. Studies have shown the detrimental impact that burnout can have on officer's attitudes towards the level of perceived reciprocity however, the impact of this on volunteer well-being remains examined. This is significant because conceptually, specials represent an important link between the public and the police. Through their non-obligatory involvement specials serve as advocates of the police, signifying a broad level of public acceptance and confidence. Establishing whether a relationship exists between levels of reciprocity and burnout represents a means through which this relationship can be empirically tested. As volunteers working within the apparatus of the state, this relationship has significant implications for the broader theoretical relationship between the voluntary sector, the state and civil society. Volunteering is said to constitute an activity primarily located within the realm of civil society, conceptualised as an area in which individuals work together collaboratively to hold the state to account (Gellner, 1995). However, the police also serve as agents of social control (Faulkner, 2001), and Special Constabulary volunteerism represents a form of activity that resides within the borderlands of the relationship between the state and civil society (Deakin, 2001). Consequently, whilst studies have examined the ways in which volunteerism contributes towards a healthy civil society through enhanced civility, trust and reciprocity (Putnam, 2000), few have examine the 'dark side' of volunteering (Smith,

1994) including the impact of burnout. More generally, volunteerism within statutory organisations such as the police has been largely neglected by voluntary sector studies representing a substantial theoretical gap in knowledge (Rochester et al. 2010).

Perhaps recognising the risks associated with police work, few studies have appraised the motivational factors associated with the profession (Storm and Rothman, 2003; Burke and Martinussen, 2006). Volunteering can be a source of positive well-being for individuals (Thoits and Hewitt, 2001; Borgonovi, 2008), therefore it seems unreasonable to assume that specials would not also benefit in some way from their participation. Just as with burnout, the relationship between Special Constabulary volunteerism and well-being is an area that has not yet been examined. Understanding the organisational and managerial issues associated with volunteer well-being has the potential to provide important theoretical insights into these issues beyond the descriptive accounts of Special Constabulary currently published. Appraising the organisational aspects of volunteerism associated with well-being and motivation is more likely to provide information on the factors that can be influenced by volunteer managers. This is important because it has the potential to provide information relating to the reasons why individuals stay, rather than the factors that prompt them to leave.

2.6 Volunteer work engagement

Work engagement was developed solely within the confines of paid work environments and has been defined as a positive state of well-being characterised by vigour (mental resilience, energy), dedication (involvement enthusiasm) and absorption (engrossed) (Schaufeli et al. 2002a; 2002b). Empirical research is largely supportive of the three-factor structure of UWES work engagement scale (Seppälä et al. 2009) typically used to measure engagement, whilst other studies have found evidence of the discriminant validity of engagement from both job involvement and commitment in paid workers (Hallberg and Schaufeli, 2006). Although studies of paid employees have begun to

focus on the positive aspects of work, such as engagement and its association with mental and physical wellness and performance (Schaufeli et al. 2002a; 2002b; Schaufeli and Bakker, 2004; Bakker and Demerouti, 2008), despite notable exceptions (e.g. Storm and Rothmann, 2003; Burke and Martinussen, 2006) these approaches have seldom been applied to policing contexts. However, recent research suggests that motivational approaches regarding the work environment may also be applicable to certain formal volunteer contexts (Vecina et al. 2012; Huynh et al. 2012a).

The relationship between volunteers and the organisations in which they give their time has a substantial influence on satisfaction, commitment and retention (Chacón et al. 2007). The three-factor structure of work engagement (UWES) has been confirmed in studies of Spanish and Australian volunteers (Vecina et al. 2012; Huynh et al. 2012a). In a partial replication of the three-stage model, it was shown how the relationship between work engagement and the intent to remain a volunteer was mediated by volunteer satisfaction in new volunteers, and by a sense of organisational commitment in veteran volunteers[2] (Vecina et al. 2012). Tuckey et al. (2012) found that effective leadership was importance in developing the necessary conditions for work engagement to develop in their sample of Australian volunteer firefighters. However, in their comparative test of the JD-R model Huynh et al. (2012a) found that it was organisational connectedness and not work engagement that mediated the relationship between job resources and outcomes. Unlike work engagement, which focuses purely upon the motivational nature of the work itself (Schaufeli et al. 2002a), connectedness was developed as means to understand the broad range of relationships and connections made between individuals and the social context of their volunteer work. Recognising that volunteers may be motivated by more than just the work itself may provide important insights into the factors associated with retention within the Special

[2] Veteran volunteers were those with 11 months or more of service at the organisation.

Constabulary. Consequently, voluntary sector studies have begun to develop theories of motivation that capture the broader aspects of unpaid work.

2.7 Connectedness and the theory of belongingness

Connectedness draws its theoretical roots from the theory of belongingness (Huynh et al. 2012b), which understands human behaviour as being driven by the need to achieve social acceptance through strong social relationships (Baumeister and Leary, 1995; Baumeister, 1998). Baumeister and Leary (1995) argue that this view accords with Bowlby's attachment behavioural system, referring to the internal psychological organisation of individuals. The goal of this internal psychological organisation is to regulate behaviours that both acquire and maintain proximity to, and contact with, individuals or groups (Bretherton, 1985). Attachment behaviours are most prevalent in stressful situations and, it is argued, play a biological function in protecting individuals from physical and psychological harm (Bretherton, 1985). Individuals who feel a sense of connectedness therefore experience belonging within on-going and meaningful relationships with others (Lynch, 2000), characterised by feelings of respect, appreciation and support (Metzer, 2003). The relationships experienced within the social context of volunteer work serve as a protective factor for individual psychological well-being (Cockshaw and Shochet, 2007), therefore withdrawal from these social relationships is associated with certain costs that would be undesirable. Consequently, volunteers who experience a sense of belongingness or connection with aspects of their volunteer work are thought to be less likely to leave.

Whilst belongingness is primarily concerned with the development of interpersonal social relationships the theory of connectedness incorporates the broader social context within which volunteering occurs. For instance Metzer (2003) suggests that connectedness is experienced when individuals perceive that their volunteer work is important and interesting, that they are appreciated and respected by the organisation

and others within it, as well as feeling connected to its values. Huynh et al. (2012b) expand upon Metzer's (2003) earlier conceptualisation to develop the four-dimensional connectedness scale (4DCS) that will be used to examine the motivational pathway of the JD-R model within this study.

2.7.1 Four-dimensional connectedness

The 4DCS represents a work-based measure of well-being specifically designed for volunteer contexts which has been demonstrated to be empirically distinct from both organisational commitment and work engagement (Huynh et al. 2012b). Connectedness reflects the sense of belonging individuals feel towards other workers and recipients, as well as a connection to the tasks carried out and the values of the organisation (Huynh et al. 2012b). Therefore connectedness is defined as a,

> "positive state of well-being that results from an individual's strong sense of belonging with other workers and the recipients of one's service. It may manifest itself as a human striving for interpersonal attachments, as well as the need to be connected with one's work and to the values of the organisation." (Huynh et al. 2012b: 1058)

Other worker and recipient connectedness refer to the two interpersonal forms of connectedness. Similar to previous conceptualisations (Metzer, 2003; Cockshaw and Shochet, 2007), other worker connectedness is characterised by feelings of appreciation, respect and a sense of getting on well with both peers and staff (Huynh et al. 2012b). Recipient connectedness encapsulates the nature of the relationship between volunteers and the clients or users of the service characterised by feelings of compassion, reciprocal exchange and a sense of duty to help those in need (Huynh et al. 2012b). The third dimension examines the connectedness felt by volunteers towards the tasks they are asked to perform, considering aspects such as whether or not volunteers feel that they have the correct skillsets for their role, perceptions of competency, as well task enjoyment. The final dimension of connectedness concerns

the extent to which volunteers feel they are valued by the organisation, including the recognition and appreciation of individual effort and the degree to which they perceive that they receive fair treatment (Huynh et al. 2012b).

Connectedness understands human behaviour as being driven by the need to engage in frequent, pleasant interactions with other individuals as a means to achieve social acceptance (Baumeister, 1998). Whilst these types of relationships may be found in other aspects of social life, Baumeister and Leary (1995) argue that there is a need for these interactions to occur within temporally stable and enduring frameworks, as this enables the development of the affective concern for the well-being of others. Therefore regular, meaningful contact with other individuals within the volunteer context forms an important part of both belongingness and connectedness,

> "Frequent contacts with nonsupportive, indifferent others can go only so far in promoting one's general well-being and would do little to satisfy the need to belong. Conversely, relationships characterized by strong feelings of attachment, intimacy, or commitment but lacking regular contact will also fail to satisfy the need. Simply knowing that a bond exists may be emotionally reassuring, yet it would not provide full belongingness if one does not interact with the other person." (Baumeister and Leary, 1995: 500).

Thompson and Bono (1993) suggest that volunteering serves as a means through which to satisfy an unmet sense of belonging, providing an outlet for individuals to develop alternative sources of social support perceived to be missing in other areas of life (Omoto and Snyder, 1995). Individuals who avoid attachment, signified by a distrust in the goodwill of others and a desire to remain both independent and self-reliant, are less likely to participate in volunteering and when doing so exhibit lower levels of altruistic motivation (Gillath et al. 2005; Erez et al. 2008). Although the importance ascribed to the form and functioning of these social interactions is likely to vary

between individuals (Baumiester and Sommer, 1997), volunteering provides an environment in which they can be developed and exercised.

The theory of connectedness has been deployed within the framework of the JD-R model including samples of palliative carers (Huynh et al. 2012c; Huynh et al. 2012a), state emergency service volunteers and volunteer ambulance workers and firefighters (Huynh et al. 2012b; Huynh et al. 2013). However, only a limited number of job resources and outcomes have been examined. None of these studies have examined European-based volunteers, or examined the role of connectedness within forms of volunteering that might evoke a less traditional relationship between the volunteer and the recipient. It is therefore important to consider the relevance of connectedness within Special Constabulary.

2.7.2 4DCS and the police

The theory of connectedness has much potential in exposing the relationship between specials, their work environment, well-being and retention. Police forces are locations of complex organisational socialisation processes (Van Maanen, 1975), characterised by a sense of solidarity between officers (Reiner, 2010), creating barriers for the inclusion of specials (Leon, 1991). Research has demonstrated that whilst specials display a great deal of respect and admiration towards their paid counterpars, in return, regulars can often be resistive towards the inclusion of volunteers. For instance, the volunteer status of the special may threat the sense of 'police professionalism' held by regulars (Mirrlees-Black and Byron, 1994; Leon, 1991). Regular officers may also be sceptical of the reasons why individuals might want volunteer for police work. To this extent, Gaston and Alexander (2001) demonstrate the disparity between the self-reported altruistic motivations of specials and the perceptions of regular officers. Leon (1991: 624) reports that some regular officers viewed specials as, "uniform fetishists", interested in welding the powers the role provides them with. Another factor influencing

the negative perspective of regulars towards specials has been the perceived unsuitability of certain recruits and their lack of training. This has led some regulars to view specials as a poorly trained and potentially dangerous backup (Gill and Mawby, 1990a; 1990b), consisting of “regular rejects” (Leon, 1991: 624). Although Leon (1991) found that well over three-quarters of regulars surveyed had agreed with the statement that specials represented a useful supplement to the regulars, an equal number (79%) thought specials were inadequately trained and over half perceived specials as depriving regulars of overtime. Therefore, whilst the views of regulars towards specials are not necessarily negative, there is strong evidence to suggest that these two occupational groups endure a complex relationship that may impact on degree of connectedness specials feel towards other workers within the Special Constabulary. Perhaps more importantly for this research is the detrimental influence that negative working relationships between regulars and special may have on retention. Although there is a lack of contemporary academic research, the ACPO (2011:7) National Strategy document recognises that the relationship between regular officers and specials is a problematic area for the majority of forces. Connectedness provides a new way of conceptualising the relationship between individuals and the force and may provide important new insights into the interpersonal relationships within the Special Constabulary. For instance in addition to the negative perceptions of regulars towards specials, analysing the provision of social support from various sources including regular officers, supervisors, co-volunteers and even non-work support for volunteering from the family may provide important insights into the underlying processes by which outcomes such as satisfaction, commitment (affect/normative) and retention can be positively influenced.

The theory of connectedness was developed to understand how positive relationships with recipients could enhance volunteer well-being. It refers to the reciprocal relationships between volunteers and recipients born out of a compassion to help and

the satisfaction derived from the, “appreciation, gratitude and friendship ‘received’” (Huynh et al. 2012b: 1059). However, the nature of Special Constabulary volunteerism is unlike any of the contexts used to validate 4DCS. Specials contribute towards the coproduction of public safety within the police, an agent of social control (Faulkner, 2001). Whilst police work involves crime prevention, helping victims, social work and public reassurance, it also requires officers to maintain public order and the observance of the law (Hough, 1985). ‘Recipients’ may not always show their gratitude or appreciation and volunteers may not always value the interactions they have with these individuals. For instance, as shown earlier, exposure to the demands of police work can lead to the development of cynical attitudes towards recipients (Niederhoffer, 1967; Maslach and Jackson, 1981), displays of emotional dissonance (Bakker and Heuven, 2006), increased use of violence (Kop and Euwema, 2001) and to a reduced sense of reciprocity (Kop et al. 1999). The occupational risk associated with police work therefore challenges the original conceptualisation of connectedness, extending its propositions into contexts where the relationship between the volunteer and the recipient is not always cordial. Furthermore, the public’s perceptions of their interactions with officers can also impact upon the level of public confidence, cooperation and trust with the police (Skogan, 2006; Jackson and Bradford, 2009; Bradford, 2010). For instance, public confidence in policing can be enhanced when individuals feel that they are treated with dignity and fairness (Jackson and Sunshine, 2006). Recipient connectedness may therefore help identify those job characteristics that promote better relations with members of the public.

Studies of the Special Constabulary also indicate that the nature of the work itself may have an impact on retention. Whilst many of the duties specials are asked to perform are in non-confrontational in nature (Mirrlees-Black and Byron, 1994), it is also recognised that specials should be able to become involved in all aspects of police work (NPIA, 2008). Task connectedness highlights the motivational nature of volunteer

work and is characterised by feelings of enjoyment and competency (Huynh et al. 2012b). However, previous research suggests that specials perceive some of the tasks they are asked to perform as meaningless or not very interesting (Gaston and Alexander, 2001; NPIA, 2010a). Therefore, examining the job characteristics that help foster task enjoyment and perceived competency may identify ways in which retention rates can be enhanced. The use of ESIBS data may further identify the particular duties and activities associated with task connectedness. This may assist with workforce planning and officer development, as volunteer managers would have more information about the areas of work volunteers find rewarding.

The final component of 4DCS refers to the sense of value connectedness felt by volunteers. It highlights the individual's identification with the aims and goals of the organisation including the volunteer's perception that they are valued, appreciated, treated fairly and that their efforts are recognised (Huynh et al. 2012a). However, prior research suggests that specials may hold a perception that their force has little concern for their health and well-being (Mirrlees-Black and Byron, 1994). Therefore findings ways of improving value connectedness is likely to be an important aspect of connectedness within the Special Constabulary that may have a positive impact on retention. The National Strategy for the Special Constabulary (ACPO, 2011) also highlights the need to recognise and reward the efforts of volunteers although it also acknowledges that there have been, "problems in delivering many aspects of [this] strategic aim/objective" (ACPO, 2011: 7). Understanding the antecedents and consequences of volunteer well-being through value connectedness therefore has both theoretical and practical implications that will be addressed by this research.

There are likely to be various job characteristics that influence the sense of connectedness felt by specials. The demanding nature of police work suggests that individuals may be attracted by the sense of challenge provided by volunteer work (e.g.

Jamison, 2003). It would therefore seem important that volunteers be provided with sufficient levels of initial and on-going training to cope with these demands. The provision of challenging assignments may be motivational when volunteers have sufficient resources. However, continued exposure to challenge without sufficient resources to cope may have negative impacts on well-being and retention. Understanding whether job challenge within the Special Constabulary is motivational helping to build connections, or is associated with burnout and reduced satisfaction, commitment or retention is therefore an important theoretical contribution of this thesis. Various other job resources are also likely to be relevant to specials, such as performance feedback and task significance, and these are identified in Chapter 4.

Just has been recognised in studies of paid workers, there may also be cross-processes within the JD-R model. Cox et al. (2012) found evidence for this within the health impairment process for HIV/AIDS volunteers however, the potential for cross-processes within the motivational pathway remains untested within a volunteer context. Despite the findings of Cox et al. (2012), it is also important to test for the presence of cross processes using alternative measures of burnout such as the OLBI. This would add further weight to the presence of cross-processes within the health impairment and motivational processes within volunteering.

2.8 Conclusion

This literature review provides an overview of the current voluntary sector research examining issues such as satisfaction, organisational commitment and retention. It shows how much of this research has been directed towards the study of dispositional variables and highlights the potential for organisational and managerial variables to explain these outcomes. Although such variables are known to be important within paid police work, their impact on volunteer outcomes within the Special Constabulary has yet to be established. The declining headcount figures reported within the most recent

Home Office (2014) statistics highlight the need for theoretically robust yet actionable information to address these concerns. After identifying the JD-R model as an appropriate theoretical framework with which to appraise the impact of job characteristics on volunteer outcomes, this literature review highlighted the potential impact of two mediator variables: burnout and connectedness. There is a vast body of literature addressing the impact of stress within police work, including burnout however fewer studies have examined the motivational aspects of the work. The individual and organisational-level impact of burnout and connectedness and their relevance to the Special Constabulary have been discussed. This has been used to justify their use in the examination of the factors associated with volunteer job satisfaction, commitment and retention within the Special Constabulary. On the basis of this section, 2.9 outlines the hypotheses tested in the empirical chapters of this thesis.

2.9 Hypotheses development

Due to the lack of volunteer-based research into the job characteristics associated with volunteer health and well-being it is essential to fully investigate the underlying direct and indirect relationships between variables. This is particularly the case with respect to police volunteerism, which has been largely neglected by the voluntary sector literature base. Therefore, the first two hypotheses addressed in this thesis examine the underlying relationships between job demands and burnout and job resources and organisational connectedness:

- H1: Job demands[3] are positively correlated with (a) burnout and negatively correlated with (b) connectedness.
- H2: Job resources[3] are positively correlated with (a) connectedness and negatively correlated with (b) burnout.

Burnout has been shown to be an important factor related to health impairment in both studies of paid workers and regular police officers. However, the relationship between

[3] The job demands and resources used in this study are discussed in Chapter 4.

burnout and outcomes such as satisfaction, commitment and retention remains unknown within police volunteerism. Therefore, the third hypothesis examines the relationship between OLBI burnout and outcome variables:

- H3: Burnout is negatively correlated with (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.

Volunteerism is also associated with positive effects on well-being. Consequently the fourth hypothesis of this thesis provides a first examination of the four-dimensional organisational connectedness scale within a European volunteer context in relation to outcome the measures assessed in this research:

- H4: Connectedness is positively correlated with (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.

Having examined the direct relationships between job characteristics, burnout and connectedness and between burnout, connectedness and outcomes measures, the fifth and sixth hypotheses seek to address the dual-processes of the JD-R model associated with health impairment (H5a-d) and motivation (H6a-d):

- H5: Burnout mediates the negative relationship between job demands and (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.
- H6: Connectedness mediates the positive relationship between job resources and (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.

Recognising that these two paths may be overly simplistic of the types of relationships found in Special Constabulary volunteerism this research also tests for cross-processes:

- H7: Job demands are demotivating and will have an indirect effect on (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.
- H8: Job resources limit the impact of the health impairment process and will have a positive indirect effect on (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction.

Longitudinal examinations of the JD-R model are also less common. Therefore this research aims to make an important theoretical contribution by examining the causal relationships between psychological states such as burnout and connectedness and volunteer outcomes:

- H9: Burnout (Time 1) will negatively predict (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction at Time 2 controlling for Time 2 levels of burnout and Time 1 levels of outcome variables.
- H10: Connectedness (Time 1) will positively predict (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction at Time 2 controlling for both Time 2 connectedness and Time 1 levels of outcome variables.

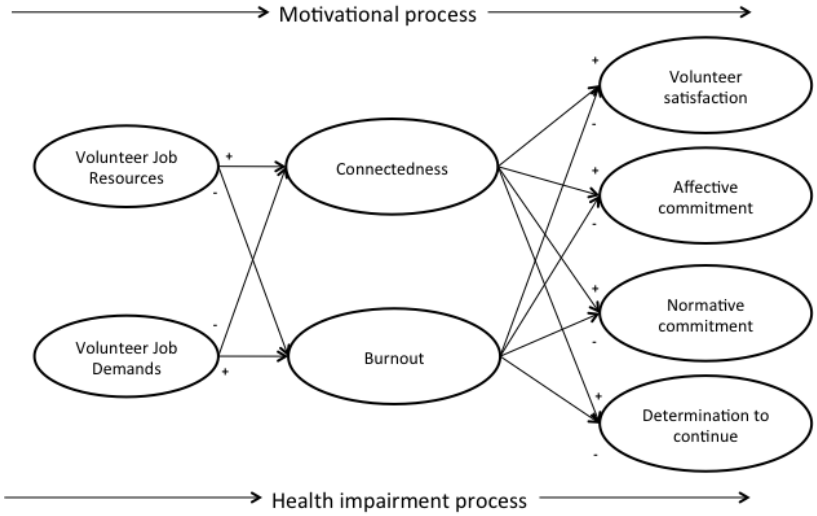
Finally this thesis will test for reversed causation between outcome variables and burnout/connectedness:

- H11: (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction (Time 1) will negatively predict burnout at Time 2 controlling for Time 2 levels of determination to continue as a volunteer, affective commitment, normative commitment and volunteer job satisfaction and Time 1 levels of burnout.
- H12: (a) the determination to continue, (b) affective commitment, (c) normative commitment and (d) volunteer job satisfaction (Time 1) will positively predict

connectedness at Time 2 controlling for Time 2 levels of determination to continue as a volunteer, affective commitment, normative commitment and volunteer job satisfaction and Time 1 levels of connectedness.

Figure 2.9 represents the theoretical model that will be tested in this thesis. As the various job characteristics (resources/demands) used in this study have not yet been identified they have been exclude. A complete model is presented in Chapter 4. The diagram indicates the direction of the relationships expected between job characteristics, well-being and outcomes. Path diagrams indicating the indirect relationships tested between job characteristics and outcomes are discussed in Chapter 3 and clarified at the beginning of the two empirical chapters examining the dual and cross-processes of the JD-R model with cross-sectional data. A separate structural model concerning longitudinal data is presented in Chapter 7.

Figure 2.9: Revised theoretical model



The following chapter of this thesis outlines the research design used to examine the 12 hypotheses posed here.

Chapter 3 Methodology

3.1 Introduction

This chapter outlines the methodological approach adopted by this study. The research design utilises both cross-sectional and longitudinal data collected via an online survey distributed to specials volunteering across two British police forces. The purpose of the design was to enable an examination of the underlying psychological processes that influence volunteer job satisfaction, commitment and determination to continue through the use of carefully adapted measurement indices from studies of paid workers, as well as those designed specifically for use within volunteer contexts. This chapter outlines and justifies the philosophical underpinnings of the current study, the research participants, data collection procedures and statistical analysis techniques.

3.2 Philosophical underpinnings

Paradigms refer to the belief, values, techniques and rules accepted by a scientific field (Kuhn, 1970) that provide an overall conceptual framework or worldview used to guide disciplined enquiry (Guba, 1990). Paradigms therefore define the ways in which a researcher views the social world, their relationship to it, including the tools and methods used to generate knowledge about it (Deshpande, 1983). Traditional debates surrounding research paradigms centre on the distinctions between the quantitative stance associated with the philosophy of positivism and the qualitative stance aligned to paradigms such as constructivism (Johnson and Onwuegbuzie, 2004). Each of these paradigms are defined by various axiological (values), ontological (nature of reality), epistemological (theory of knowledge) and methodological (data collection techniques) perspectives (Healy and Perry, 2000). When viewed as philosophical paradigms, positivism and constructivism hold different and strongly opposing axiological,

ontological, epistemological and methodological views. This section of the thesis identifies and justifies the philosophical paradigm guiding this research.

Rather than seeking to collect data in order to build theory (inductive approach) this research applies a deductive approach to theory testing. In Chapter 2, existing research was used develop a series of hypotheses that will be subjected to empirical scrutiny. Deductive logic is more commonly associated with quantitative research strategies under which scientific methods are applied to objectively measure some aspect of human behaviour and explain the general laws that are deemed to act upon it (Robson, 2011). As the purpose of this thesis is to quantify the effect of the generative mechanisms through which job characteristics influence volunteer outcomes, the research is informed by the post-positivistic paradigm. Before the philosophical underpinnings of post-positivism are considered, it is important to consider why other approaches, such as constructivism, were rejected.

Constructivist approaches consider how the social world is interpreted, emphasising the importance of an individual's experiences and the meanings they ascribe to them (Robson, 2011). From an ontological perspective, constructivism views reality as something that is individually constructed (Guba and Lincoln, 1994), recognising that because these perceived multiple realities are both time and context specific they cannot be known a priori (Hudson and Ozanne, 1988). Within constructivism, knowledge and findings are created through interactions between researcher and participant (Guba and Lincoln, 1994). Constructivism is therefore epistemologically subjectivist (Guba, 1990). The research methods used facilitate the collection of multiple different perspectives, enabling participants to construct reality with the researchers (Robson, 2011). Approaches guided by constructivism therefore aim to develop an empathetic understanding with respondents, generating context specific, in-depth data (Bryman, 2004) from which theory is then induced (Scott, 2002).

As each individual constructs their own reality of the social world, constructivism seeks to understand human behaviour rather than explain the general laws that act upon it (Bryman, 2004). The multiple subjective understanding of reality held by constructivism is therefore incommensurate with the ontological approach taken in this thesis. This thesis aims to measure the generative mechanisms that act on human behaviour. These could not be numerically quantified and measured if reality was viewed as being subjective.

Post-positivism takes a critical realist approach to understanding the nature of reality (Guba, 1990). In this sense it shares with positivism an understanding that an external reality exists and, to some extent, can be measured (Guba, 1990). Reality is driven by natural laws however, from the post-positivist perspective these can only be known probabilistically or imperfectly (Guba and Lincoln, 1994). From an epistemological perspective, post-positivism is objectivist but understands that evidence is always imperfect. No level of knowledge is considered final, as new observations may cause us to reconsider existing theory (Philips, 1990). Unlike positivism, post-positivism recognises potential sources of bias, such as the subjective dispositions of researchers (Hanson, 1958), and seeks to employ methods that reduce their impact in order to establish the reliability and validity of the research (Robson, 2011). Importantly, post-positivism recognises the challenges associated with observation as a means to accumulate scientific knowledge (Blaikie, 2007). As constructs such as burnout and connectedness cannot be observed, the process of social research is therefore to transform these concepts into empirical indicators. Consistent patterns of association between these indicators provide theoretical validity for such constructs as, whilst they cannot be measured, their effects can (Bryman, 2004).

Unlike inductive research, where observations are used to develop theory, deductive approaches use existing literature and theory to deduce hypotheses that are subjected

to empirical scrutiny (Bryman, 2004). This enables the research to examine constructs that explain causal relationships, such as those of interest to this thesis (Robson, 2011). Therefore, whilst constructivism seeks to develop an empathetic understanding of the social world, post-positivistic research attempts to explain human behaviour through the application of scientific methods, enabling an examination of the forces that are deemed to act upon it (Bryman, 2004). The positivistic paradigm has been profoundly influential within disciplines such as organisational psychology (Tolman, 1992), from which the central theoretical components of this thesis are drawn and non-profit management research (Bielefeld, 2006), the context within which these theoretical perspectives have been applied. The research questions developed in Chapter 2 call for the use of scientific, quantitative methods to examine the generative mechanisms that explain retention within the Special Constabulary. Therefore, in light of the ontological and epistemological considerations above the paradigm of post-positivism will be adhered to.

3.3 Research design

In order to investigate the hypotheses developed in Chapter 2, a longitudinal or repeated measures design (Elliott et al. 2008) was developed. This involved the development and deployment of an online survey delivered via an in-house email communications system. The survey was sent to current serving specials volunteering across two British Special Constabularies. Recognising the post-positivistic stance of the research, it is important to consider the researcher's position in relation to the context and the steps taken to minimise any bias. Therefore the following section consider issues such as reflexivity and objective.

3.3.1 Reflexivity and objectivity

The position of the researcher within the organisation raises important questions about objectivity and reflexivity, particularly within a post-positivist research paradigm.

Reflexivity raises fundamental questions about the ability of social research to capture the complex nature of the social world including our ability to make truth claims about the knowledge we accumulate and meaning we ascribe to findings (Cunliffe, 2003). Whilst it is important to adhere to the philosophical paradigm guiding the research, it is equally important to remain critically aware of the research process and the potential for transformation within research contexts, social actors and researchers themselves (Cunliffe, 2003). Issues of reflexivity and objectivity are relevant here because of time spent by the researcher working within the case organisation.

In positivistic research ontology is viewed as separate from epistemology. Reality is objective and external to research participants. Therefore, knowing and theorising about the social world is separate from our experience of it (Cunliffe, 2003). In this sense the representation of findings is less problematic, as it is believed that research can observe and empirically measure reality, building confidence that findings and knowledge are a true reflection of that reality. However, the knowledge and experience that researchers brings with them into their research is recognised within the epistemology of post-positivism as one of the factors that makes our understanding of reality probabilistic (Robson, 2011). Whilst objectivity remains the ideal (Guba, 1990), it is important to minimise any bias or influence on the research context to ensure that research is conducted on the basis of neutrality and impartiality, as well as to protect the findings from claims of self-interest (Phillips, 1990). It is therefore important to highlight the steps taken in this research to ensure objectivity was retained during the research process.

As part of the ESRC Case Studentship funding agreement the researcher spent two-days per week working on police-related projects at the case organisation. Much of this work related to the design, implementation and analysis of user-satisfaction surveys and was not related to operational policing duties during which the researcher might

have come into direct contact with members of the Special Constabulary. As the researcher was based at Police Headquarters, away from the centres of deployment used by special constables, any contact with these volunteers was minimised. Whilst these experiences provided some degree of theoretical sensitisation to the research context, contact with operational members of the force, and in particular the proposed sample, was rare. Retaining distance from potential research participants limited the risk of potential external influences on the research setting and helped to maintain an objective stance on the part of the researcher. Furthermore, to limit the risk of biasing the sample during the course of the research, findings were only disseminated to the case organisation after the final wave of data had been collected.

3.3.2 Research setting: selection of case partners

The sampling frame was drawn from a list of current volunteers serving as special constables within two comparable British Special Constabularies, one being the case partner organisation and the second recruited at a later date as a means to increase sample size and statistical power. Both of the forces participating in this research policed broadly similar rural areas and are considered as 'peer forces'[4]. In order to provide a comparison, requests for participation were made to forces that policed more urban areas however these were unsuccessful.

3.3.3 Procedure

3.3.3.1 Survey design and piloting

Existing for-profit, non-profit and policing-based literature was reviewed to identify potential dependent, independent and mediator variables. Due to the relative paucity of

[4] Peer forces are those located within the same 'most similar groups' (MSGs). These are groups of local areas that, using statistical methods, have been found to be similar to each other based on demographic, economic and social characteristics that relate to crime. For more information please refer to the HMIC website: http://www.hmic.gov.uk/media/most-similar-groups-technical-note.pdf

non-profit research focussing on the management of volunteers (Bielefeld, 2006) and therefore a lack of bespoke volunteer-focused constructs suitable for this research, a number of scales developed in paid work contexts were utilised in this research. Whilst it is not uncommon for non-profit management studies to borrow from for-profit research (Tidwell, 2005), it is important to ensure any constructs used in non-profit research are interpreted in the same manner as they are in for-profit contexts. As quantitative researchers deal with the abstract properties of constructs, survey data and the responses it derives can be criticised for being less contextual. Therefore ensuring the equivalence of meaning across contexts is vital if the validity and reliability of survey items is to be upheld (de Vaus, 2008).

With the exception of the measure used to examine the working relationships between regular officers and specials and 4DCS, the scales used in this research were drawn from psychometrically robust, validated measures published in scholarly journals. On-going consultations with representatives from the police were used to identify the contextually correct terminology. Cognitive interviews (Willis, 2005) were then conducted to determine whether any modifications made to the original scales altered the ways in which volunteers interpreted the survey items. Cognitive interviews provide researchers with the opportunity to appraise how respondents understand, mentally process and respond to survey items (Willis, 2005). In total 10 in-depth cognitive interviews were conducted with volunteers from both Special Constabularies.

In general, the modification of pre-existing survey items was limited to adoption of contextually correct terminology. References to ‘organisation’ were replaced to ‘force’ and ‘line manager’ to ‘supervisor’. Furthermore, references to ‘job’ and ‘work’ were replaced with ‘voluntary role’, ‘volunteering’ or ‘volunteer/voluntary work’ where appropriate. In the case of on-the-job learning an additional item referring to the importance of improving levels of knowledge was identified in addition to the item

asking about talents and skills. A detailed description of the changes within each of the items used is provided in Chapter 4.

When examining the nature of the working relationships between regular officers and specials a new measurement tool was developed using deductive scale development techniques (Hinkin, 1998). Such techniques are advantageous in contexts where there is no pre-existing theory. Here the findings of previous Special Constabulary research (Leon, 1991; Gaston and Alexander, 2001) were used to develop a series of items that could represent the factors influencing the working relationships between regular officers and specials.

Each of the variables was subjected to psychometric testing (Chapter 4), including an examination of the underlying factor structures of burnout and connectedness. Once the measurement items had been finalised an online survey was developed using the Qualtrics software, an online survey-hosting platform. Online research has many advantages over paper and pen or telephone surveying and is becoming increasingly common within the field on non-profit studies (Cnaan et al. 2010). For instance, the software could be used to ensure individuals completed all of the items for any given measurement indices and ensured that all items are asked in a consistent manner. Survey sections and item ordering can also be rotated or randomised to reduce respondent acquiescence and limit any underlying bias in terms of the ordering of the measurement items. Importantly, the use of Qualtrics enabled the generation of a unique link for each participant enabling the use of targeted reminders as well as the ability to link survey responses to other data sources such as ESIBS. A copy of the online survey used in this research can be found in Appendix A.

3.3.3.2 Data collection

The survey was delivered via the Emergency Services Internet Booking System (ESIBS), an online workforce management and communication tool providing email like

services. In order to comply with police requirements, before access could be granted to ESIBS, the researcher was required to attend training sessions and complete two assessments via the National Centre for Applied Learning Technologies (NCALT) system[5]. The pass rate for both these assessments was 100%. Access to ESIBS was granted during the first week of January 2013.

The use of ESIBS provided a number of advantages over alternative delivery methods such as personal or force email addresses. Unlike police force email, ESIBS is accessible on any device with an Internet connection and does not require the user to be on police premises. This enabled participants to complete the survey in their own time, away from police premises. ESIBS also circumvents data protection issues concerning the provision of personal email addresses beyond their intended purposes. All special constables have access to ESIBS and, in addition to its use as a communications tool, are required to record their monthly duty activities. Therefore volunteer engagement with ESIBS was high and helped to ensure a good response rate. ESIBS also provided the ability to download reports based on the information held on its servers. This meant that an accurate sampling framework consisting of all serving officers could be obtained alongside data concerning duty (e.g. local policing, incident response) and activity-type (e.g. arrests, stop and search). This enabled the generation of individual participant records including duty and activity-type measures that could be linked back to survey responses via the use of a randomly generated respondent ID number and a unique survey link for each participant. Potential respondents were made aware that their survey responses would be linked back to their data on ESIBS prior to starting the survey and were also provided with the opportunity to withdraw from the research at any stage. Although it was not possible to establish the number of respondents who declined to complete the survey because of

[5] Lawful Handling of Information; Management of Police Information Module 1L Background to MoPI

the links made to ESIBS data, no requests for withdrawal from the research were received during or after the data collection period.

A sampling frame was drawn down from ESIBS containing information on all serving specials across both forces (e.g., name, collar number, police force) and was used to create a unique link to the survey for each participant. Each respondent was assigned a unique ID number, which was consistent in both the ESIBS data and survey responses, enabling the ability to link the survey responses to the ESIBS data. To maintain the confidentiality and anonymity of respondents, all personally identifiable information was removed prior to data analysis with only the unique ID and police force identified retained. As password protected master file containing both the unique ID numbers and collar numbers was retained in the event that a respondent should wish to withdraw from the research. Each volunteer was then sent an initial invite to participate in the research. This contained information about the purpose of the study, the funding body as well as contact details for the researcher should any participant have any further questions or wish to retract their responses from the research. The survey distribution method was pilot tested amongst a group of PhD students as well as members of police staff at both participating organisations to ensure there were no accessibility issues.

Initial invites were sent to volunteers during the first week of March 2013, with the fieldwork period running for a total of six-weeks. Respondents were informed that their participation in the research was voluntary and that the survey data would be reported in such a way and that their anonymity and confidentiality would be protected. Respondents were also informed that, with their consent, their survey responses would be linked to ESIBS data concerning the types of operational duties they had been involved in. Respondents who did not give consent for this had the option to decline from participating in the research, whilst each respondent who completed the survey

was also provided with the researcher's contact information should they have any further questions. Respondents were also informed that they could withdraw from the research at any time however, no such requests were received. The invite emails were staggered across the two forces by two-days. This was partly due to the labour intensive mail-out procedure that required approximately 600 individual emails each with unique links to the survey to be scripted and sent, but also provided an opportunity to identify any unexpected issues with the survey not recognised during the piloting. Targeted reminders were sent to those who had not completed the survey at the end of week 2 and beginning of week 5. Those who participated in the first wave of the study were re-contacted six months later and asked to participate in a follow-up survey. These invitations were sent out in the middle of September 2013. Targeted reminders were again sent out to those who had not completed the survey at the end of week 2, with the second wave of data collection lasting 4 weeks in total. On the request of the case organisation, the second wave survey was reduced in length to exclude items concerning job demands and resources. This was primarily due to practical concerns from the case organisation regarding over engagement with volunteers through ESIBS following various other requests for participation in research and not because of concerns regarding the length of the original survey mailed out in March 2013.

One of the significant challenges associated with longitudinal research is identifying the most appropriate lag period. For instance, it has been suggested that any time lag between study waves should correspond with any underlying true lag as not to bias the effects of the causal variables (de Lange et al. (2004). Cuskelly and Boag's (2001) three-wave study of volunteer sports administrators tied the data collection periods in with the beginning and end of the sporting season. Other research shows how different constructs drive volunteer retention at different time periods (Chacón et al. 2007). As much the quantitative voluntary sector research is still cross-sectional in nature, little is known about the temporal dynamics of factors such as motivation (Perry and Imperial,

2001). Often the choice of any lag time is constrained or driven by practical factors within the research context (de Lange et al. 2004). Recent studies of paid workers examining similar constructs to those considered here have used lags of one-year (Schaufeli et al. 2009a; Hall et al. 2010); 16-months (de Lange et al. 2008); two-years (Mauno et al. 2007); three-years (Hakanen et al. 2008; Boyd et al. 2011); five-years (Bakker et al. 2000) and 10-years (Airila et al. 2014).

Without any previous voluntary sector longitudinal evidence to consult the selection of an appropriate time lag for the current research was guided by practical considerations. However, with yearly turnover rates within the Special Constabulary increasing from 20% in 2013 (Berman and Dar, 2013) to 31% (Home Office, 2014), a shorter time lag (e.g. less than one-year) is perhaps more appropriate to capture the underlying health impairment and motivational processes and to ensure a sufficient response rate. By its nature, volunteering is an activity that individuals are not obliged to conduct, therefore any processes related to health impairment may function quicker than those found in paid employment. Similarly the same might be said for the motivational process however, the counter argument to this perspective is that any period shorter that one-year might be insufficient to capture these processes in action.

3.3.3.3 Participants

In total 327 responses were received at T1 and 169 at T2, resulting in 272 useable responses at T1 and 150 usable responses at T2. The response rate relating to the usable responses was 46%[6] at T1 and 55%[7] at T2, whilst the average time taken to complete the survey at T1 was 47 minutes. Analysis of the demographic characteristics of the T1 sample indicates that 72% of respondents were male. Whilst this may appear to be high, analysis of the publicly available workforce statistics (HMIC) for both participating forces suggests a higher proportion of male officers, similar to that of the

[6] T1 Response rates at each Special Constabulary = 39% and 52%.
[7] T2 Response rates at each Special Constabulary = 40% and 60%.

figure reported in this study. Over half of the sample (56%) was aged 30-years or younger whilst 93% said that their ethnicity was White British. 56% of officers had been in service for no more than 2-years, whilst 6% of officers reported that they had been volunteering for at least 20 years. There was also evidence that specials volunteered more than the minimum monthly requirement, with 75% stating that on average they volunteered more than 16 hours per month. Over three-quarters (79%) of respondents stated that their rank level was 'special constable' whilst 14% said that they were a 'special sergeant'. Over half (55%) of the participants had achieved independent status indicating that they have completed their student officer learning agreement portfolio (SOLAP) and were able to patrol solo. 12% of specials were also members of police staff, whilst 17% indicated that they participated in other forms of volunteering in addition to their role within the Special Constabulary. Finally, 56% specials stated that they had or intended to make a future application to the regular service, suggesting a roughly even split between career specials (i.e. individuals who wished to remain as specials) and those who wanted to join the regular service.

3.3.3.4 ESIBS data

Data held on ESIBS was also collated and linked to individual level survey responses. As the two forces participating in this research each had different reporting procedures concerning duty and activity-types on ESIBS, advice was sought from representatives at each force concerning the matching of various differently named activities to ensure consistency. Duty types and activities that were not consistent across both forces were excluded from the analysis. As the survey was launched in the first week of March 2013, ESIBS information for the previous 12 months was collected and linked to survey responses.

3.4 Statistical analysis: cross-sectional data

Confirmatory factor analysis (CFA) was conducted (AMOS version 21) to determine the underlying factor structures of the Oldenburg Burnout Inventory (OLBI, Demerouti et al. 2010) and Four-Dimensional Organisational Connectedness Scale (4DCS, Huynh et al. 2012b). Hypotheses 1-4 were addressed using multiple regression techniques. Testing for indirect effects concerning the dual and cross-processes (H5-H8) of the JD-R model was conducted using the PROCESS macro and SPSS software add-on (Hayes, 2013). Relative weight analysis (RWA; Johnson, 2004) was then conducted in SPSS to determine the relative importance of each job demand and resource. Structural Equation Modelling (SEM) using observed variable scores in AMOS (version 22) was conducted to test for causal and reverse causal (reciprocal) effects (H9-H12).

3.4.1 Justification of analytic method

Due to the complexity of the model, including the number of parameters that would need to be calculated and the limited sample size available, a full structural equation model (SEM) was not considered appropriate. Therefore, in order to examine the indirect effect of job characteristics on the outcomes variables the PROCESS macro (Hayes, 2013) was utilised. PROCESS holds many advantages other common approaches to examining indirect effect such as the causal steps method (Baron and Kenny, 1986).

3.4.2 PROCESS analysis

The PROCESS SPSS macro combines various computational tools found in other add-ons (INDIRECT, SOBEL, MODMED, MODPROBE) into a single integrated command that can be used to examine the indirect effects of variables using OLS regression and unstandardized regression weights (Hayes, 2013). Unlike the causal steps method, PROCESS does not rely upon a series of hypothesis tests to detect mediation effects. By inferring the existence of an indirect effect via series of four hypothesis tests, the

causal steps method is both less accurate and less sensitive to the presence of indirect effects (Fritz and MacKinnon, 2007; Hayes, 2013). Furthermore, because the causal steps approach requires the presence of a significant total effect facilitate further testing, instances where several opposite but equal specific effects cancel out the total indirect effect will be missed (Hayes, 2013). Perhaps most importantly for this research, because the existence of an indirect is inferred via four hypotheses, the causal steps approach does not quantify the indirect effect (Hayes, 2009; Hayes, 2013). Therefore, rather than using objective quantitative criteria to appraise mediation, research using the causal steps approach apply terms such as *complete* or *partial* mediation (Hayes, 2013). PROCESS overcomes these issues, allowing for the quantification and significance testing of the indirect effect whilst also providing the ability to include control variables.

3.4.3 Simple mediation

Figure 3.1 represents a simple mediation model where *X* = the independent variable, *M* = the intervening variable or mediator and *Y* = the dependent variable. Paths *a* and *b* are the constituent paths of the indirect effect, whilst *c'* is the direct effect of *X* on *Y* controlling for the indirect effect of *M*. Path *a* represents the effect of *X* on *M*, quantifying the change in *M* based on a one-unit change in *X*. In the mediation models tested in this thesis, this would be the effect of a job characteristic (e.g. role ambiguity) on a mediator (e.g. disengagement). Path *b* is the effect of *M* on *Y* controlling for (holding constant) *X*. This quantifies the change in *Y* based on a one-unit change in *M* controlling for *X.* In the mediation models, this would represent the effect of a mediator (e.g. disengagement) on an outcome (e.g. determination to continue) controlling for the characteristic under investigation. As suggested by Hayes (2013: 92), the two formulas can be expressed as:

$$a = [\widehat{M} \,|(X = x)] - [\widehat{M} \mid (X = x - 1)]$$

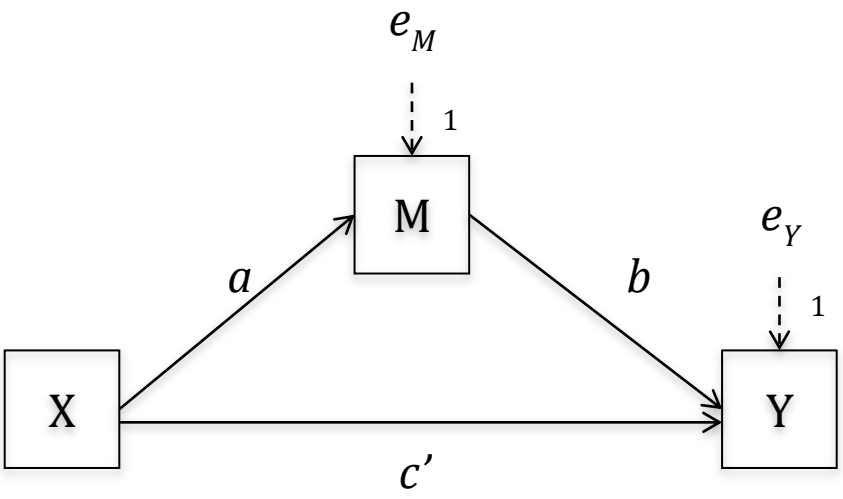
$$b = [\hat{Y} \mid (M = m, X = x)] - [\hat{Y} \mid (M = m - 1, X = x)]$$

Where m/x = any value of *M* or *X*, | = conditioned on, and the hats on *M* and *Y* ($\widehat{M}$, $\hat{Y}$) = estimated values from the model. The indirect effect of *X* on *Y* through *M* is the product of the paths *a* and *b* (*ab*), indicating, "two cases that differ by one unit on *X* are estimated to differ by *ab* units on *Y* as a result of the effect of *X* on *M* which, in turn, affects *Y*" (Hayes, 2013: 92). In the mediation models reported in this thesis, this would indicate the indirect effect size of a job characteristic (e.g. role ambiguity) on an outcome (e.g. determination to continue) through a mediator (e.g. disengagement). The direction and significance of this coefficient informs us whether there is evidence of an indirect effect in the mediation. PROCESS also calculates the direct effect (*c'*) of *X* on *Y* controlling for *M*, interpreted as the change in *Y* based on a one-unit change in *X* but holding constant the value of *M.* As indicated by Hayes (2013: 91) the direct effect can be determined as*:*

$$c' = \left[\hat{Y}\middle|(X = x, M = m\right] - \left[\hat{Y}\middle|X = x - 1, M = m)\right]$$

In a mediation model, if the direct effect is non-significant then it can be determined that the effect of *X* on *Y* is not independent of its effect through *M*. Using the example from above, a significant indirect effect and non-significant direct effect would indicate that the effect of role ambiguity on the determination to continue is not independent of its effect through disengagement.

Figure 3.1: Simple mediation model



Adapted from Hayes (2013: 91)

As indicated by Hayes (2013: 90), the direct and indirect effects, "perfectly partition", how *X* affects *Y* accounting for *M*, known as the total effect (*c*). The total effect of *X* on *Y* can be understood as the sum of the direct and indirect effects ***c=c'+ab***, quantifying the change in *Y* based on a one-unit change in *X* (Hayes, 2013: 93):

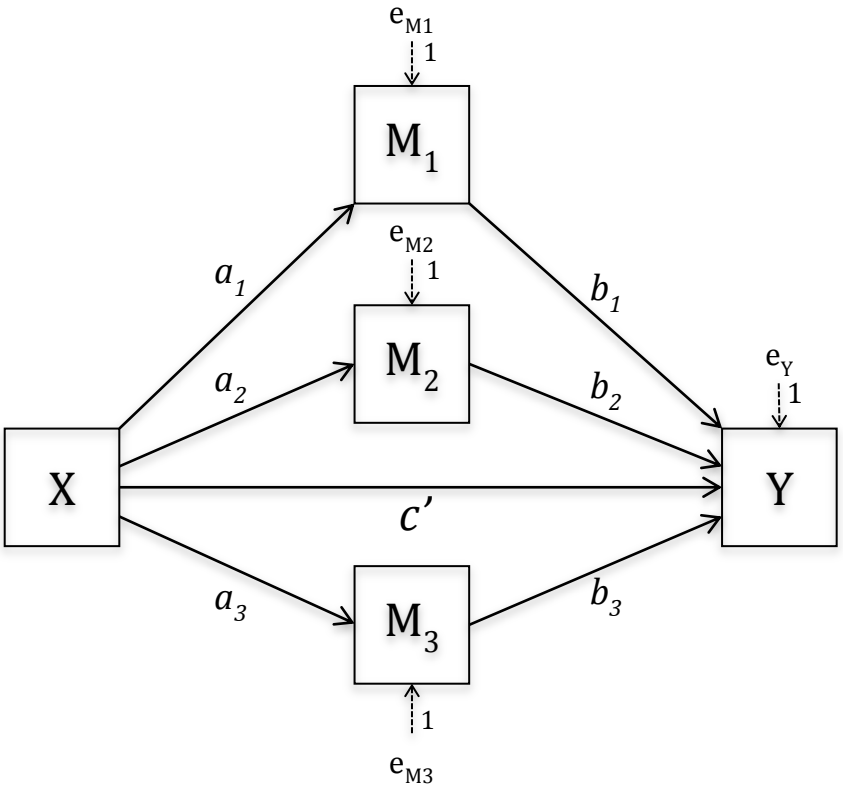
$$c = \left[\hat{Y}\middle|(X = x)\right] - [\hat{Y} \mid (X = x - 1)]$$

Importantly within PROCESS, the presence of a significant total effect is not a prerequisite for continuing to examine for indirect effects. When conducting simple or multiple mediation analysis, the purpose is to determine whether the effect of *X* on *Y* is dependent upon the effect through *M*. Therefore the null hypothesis (H_0:$_T$***c'***=0) is tested against the alternative hypothesis (H_1:$_T$***c'***≠0), or if confidence intervals are used whether the interval estimate for $_T$***c'*** includes zero (Hayes, 2013). A significant direct effect (***c'***) indicates that the effect of *X* on *Y* is independent *M* and no mediation is present. If, on the other hand, ***c'*** is no longer statistically significant then the relationship between *X* and *Y* is not independent of the effect through *M*. This would indicate evidence of mediation. Simple mediation is important because it enables an examination of effects of the mediators independently.

3.4.4 Multiple mediation analysis

Multiple mediation extends the simple mediation models to include additional indirect paths between *X* and *Y*. Whilst the theoretical model under test will influence the nature of these paths, for the purpose of this research the multiple mediation models consisted of 2 and 3 mediator models depicting additional indirect paths between *X* and *Y*. Multiple mediation analysis enables the specific contribution of mediator variables, including their relative magnitude and impact on *Y,* to be assessed simultaneously whilst controlling for the presence of all other mediators (Preacher and Hayes, 2008). *X* is therefore modelled as its effect on *Y* through *k*+1 pathways (Hayes, 2013). One path is direct (*X* predicting *Y*)*,* whilst the others *k* pathways represent *specific* indirect effects through each individual mediator (Hayes, 2013).

Figure 3.2: Multiple mediation model



Adapted from Hayes (2013: 127)

However, in a multiple mediation model it is also important to recognise that a specific indirect effect through any mediator is not the same as the indirect effect through that mediator alone (unless all mediators are uncorrelated). Preacher and Hayes (2008) indicate that a specific indirect effect through any given mediator represents the ability of that variable to mediate the effect of *X* on *Y* conditional to the presence of the other mediators within the specified model. Figure 3.2 represents a multiple mediation model with three intervening or mediator variables to the same specification as used in Chapter 6, when examining the indirect effect of connectedness within the JD-R model. The mediation model used in Chapter 5 when investigating burnout consists of two indirect effects.

The interpretation of the total effect of *X* on *Y* remains unchanged from that of simple mediation model. The specific indirect effect of *X* on *Y* through *M* is defined as the product of the two paths linking *X* to *Y* via the mediator of interest (e.g. a_1b_1). Therefore in reference to the three-mediator model above the following the specific indirect effects are calculated as: $M_1 = a_1b_1$; $M_2 = a_2b_2$; and $M_3 = a_3b_3$, acknowledging that each of these indirect effects is conditional upon the presence of the other mediators (Hayes, 2013). The total indirect effect of *X* on *Y* is therefore the sum of the specific indirect effects: $\Sigma_i(a_ib_i)$, where *i* = mediators M1, M2 and M3, whilst the total effect of *X* on *Y* is the sum of the direct effect and each of the specific indirect effect: $c = c' + \Sigma_i(a_ib_i)$, again where *i* = mediators M1, M2 and M3 (Preacher and Hayes, 2008; Hayes, 2013). If the direct effect (*c'*) is not significant once the total indirect effect of all mediators in the model is accounted for, then the effect of *X* on *Y* is not independent of the paths through those mediators. In this instance the effect of *X* on *Y* would be mediated by the *M* variables in the model. The task then is to make statistical inferences about the total and specific indirect effects to determine their relative magnitudes and significance. Although a reduction in *c'* to a value close to zero is often a sign that the intervening

variables are responsible for transmitting the effect of *X* on *Y*, statistical tests are required to confirm whether the change in *c'* is statistically different from zero.

3.4.5 Statistical inferences regarding total and specific indirect effects

One of the advantages of using PROCESS to examine for indirect effects is the ability to use bootstrapped confidence intervals to estimate significance, therefore addressing the issues with significance testing found in other methods. For instance, Baron and Kenny (1986) recommend using the Sobel or products of coefficients test when estimating whether an indirect effect is significant. The Sobel test examines whether the difference between the total (*c*) and direct (*c'*) effect is significant by estimating the ratio of *ab* to its estimated standard error (SE). It then calculates *p* values for this ratio, which are used to judge the significance of the hypothesised meditated relationship (Zhao et al. 2010; Preacher and Hayes, 2008). One of the major limitations of this strategy is the assumption of normality that is violated by the test. The *p* value for the ratio of *ab* to its estimated standard error is calculated on the assumption of a normal distribution (Preacher and Hayes, 2008). However, as Zhao et al. (2010) point out, because the indirect effect is the product of two parameters (*ab*) the sampling distribution is not normal. Consequently, the *p* values used to test significance are based on assumptions that are violated by the test (Preacher and Hayes, 2008). Furthermore, MacKinnon et al. (2004) also inform us that the distribution of the product is often skewed, therefore confidence intervals based on a symmetrical, normal distribution will result in underpowered tests for mediation. Due to the issues associated with the Sobel test, Preacher and Hayes (2008) recommend the use of bootstrapping, a nonparametric resampling procedure, when testing for significant indirect effects. Importantly, bootstrapping does not assume a normal sampling distribution when calculating significance (Preacher and Hayes, 2008).

Diaconis and Efron (1983) described bootstrapping as the process of estimating statistical accuracy using data within a single sample by mimicking the selection of many samples as a means to identify the probability that the values of the test statistics fall within various intervals. Observations within the original sample are randomly resampled with replacement and a test statistic of interest (e.g. total indirect effect) is calculated in a process that is repeated thousands of times (Hayes, 2013). Confidence intervals are then calculated and used to determine the significance of a test statistic. For instance, in Chapters 5 and 6, PROCESS took a random sample of cases from the original sample (N=272) and estimated the total, direct, total indirect and specific indirect effects within these samples 5,000 times. Using these 5,000 estimates, endpoints for the confidence intervals were calculated using the bias-corrected method as recommended by Hayes (2013). Confidence intervals were initially calculated at the 99% level however, non-significant results were rested at the less conservative 95% level to ensure that significant relationships were not missed. With regards to the interpretation of confidence intervals for statistics such as the total indirect effect, if zero is not contained within the lower and upper bounds of the confidence interval then there is evidence that the effect of *X* on *Y* is not independent of the effect through *M.*

Effect sizes for each of the individual path models were also calculated using $R^2_{4.5}$ (Fairchild et al. 2009; Preacher and Kelley, 2011). $R^2_{4.5}$ represents the amount of variance in the outcome variable that is common to both the independent variable and the mediator but cannot be attributed to either separately. $R^2_{4.5}$ is another statistic that provides useful information when attempting to judge the practical importance of a variable (Fairchild et al. 2009).

One final benefit of PROCESS is the ability to make pairwise comparisons between specific indirect effects (Hayes, 2013). Therefore, within each of the mediation analyses reported in Chapters 5 and 6 additional tests were conducted to understand

whether one or more of the mediators accounted for significantly more of the effect of *X* on *Y*. For instance, if the specific indirect effects through other worker and value connectedness were both significant, the pairwise contrast analysis would test between the magnitudes of these effects to determine whether either was statistically greater than the other.

3.5 Relative weight analysis

PROCESS automatically calculates unstandardised regression coefficients, making the comparison of results across constructs with different scales misleading. Furthermore, indirect effect sizes are likely to be relative to the total effect size (unless suppression is present). To overcome these issues relative weight analysis (RWA) was conducted as a means to understand the relative importance of each job characteristic in relation to the various outcomes (criterion variables). Relative importance is defined as,

> "the proportionate contribution each predictor makes to R^2, considering both its unique contribution and its contribution when combined with other variables. Relative weights consider the direct effect of each predictor and its joint effect with other variables when partitioning the predictable criterion variance among them" (Johnson, 2004: 284)

Relative weights range from 0 to 1.0 with each relative weight representing the proportion of variance in the criterion variable that is associated with each predictor (Johnson, 2004). Relative weights provide a means through which to interpret data, particularly when predictor variables are correlated (Johnson, 2000) however, it is important to recognise that these weights can be influenced by sampling error (Johnson, 2004). As such it is important to ensure that scale reliabilities are within acceptable levels (see Chapter 4). The Rweight SPSS macro by Johnson (2001) was used to examine the relative weight of each job characteristic's effect on outcome

(criterion) variables. Relevant mediators and control variables were also included as predictor variables to remain consistent with the path analysis.

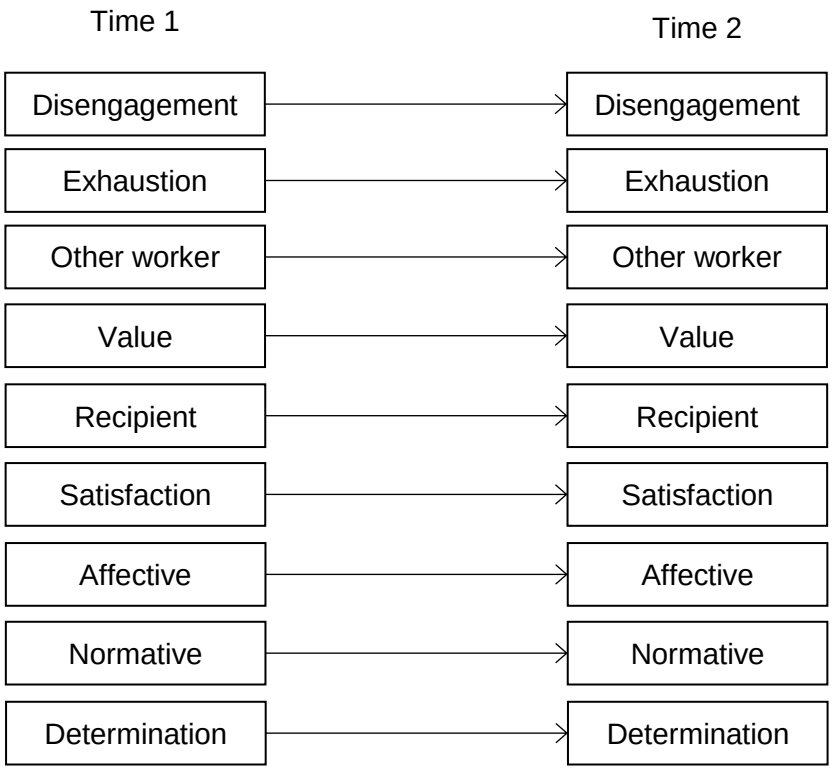
3.6 Longitudinal analysis

The longitudinal analysis was conducted using version 22 of the AMOS software package. Due to the complexity of the theoretical model in relation to the available sample size (N=150) and to remain consistent with the cross-sectional analysis, structural equation modelling was conducted using observed scores instead of latent variables. The maximum likelihood method of estimation was used as it is considered to be more robust than other methods that require larger sample sizes and is less sensitive to violations of multivariate normality (Cortina et al. 2001; Boyd et al. 2011). Due to restrictions regarding survey length, job demands and resources were excluded from the questionnaire at T2. Therefore in this analysis burnout and connectedness were treated as the independent variables and volunteer job satisfaction, affective/ normative commitment and determination to continue as dependent variables. The purpose of this longitudinal analysis is to determine whether T1 levels of burnout or connectedness predict T2 levels of outcomes controlling for T2 levels of independent variables and T1 levels of dependent variables.

The procedures advocated by de Lange et al. (2004) and in particular Boyd et al. (2011), who used a similar technique to test causal relationships between job demands/resource and strain/commitment in Australian academics, was adopted. First a stability model in which estimates between T1 observed variables and their T2 counter parts was calculated (figure 3.3). In addition to serving as a baseline against which to evaluate further models, Boyd et al. (2011) argue that the stability model also helps to reduce the influence of third variables (e.g. subjective dispositions). In this and all other subsequent models the T1 observed variables were allowed to inter-correlate, as were the T2 error terms.

To test the causation hypotheses, paths (H9, H10) were drawn from T1 burnout (disengagement, exhaustion) and T1 connectedness (other worker, value and recipient) to the T2 outcome variables. As no distinction is drawn between outcome variables and the dual-processes of the JD-R model, this analysis enables the testing of cross-processes to determine whether burnout/connectedness has a negative/ positive impact on outcomes. Similar to Boyd et al. (2011), this research also tests for reversed causal effects. Additional paths were therefore calculated back from T1 outcomes to T2 levels of burnout and connectedness (controlling for their T2/T1 counterparts) (H11, H12).

Figure 3.3: Longitudinal structural model – stability model



Note: For simplicity inter-correlations between T1 independent variables and between T2 error terms have been excluded.

The following chapter of this thesis outlines the selection measures used in this study, including the modifications to these items as well as the results of the CFA and psychometric testing.

Chapter 4 Measurement Indices

This section examines the measurement indices used in this thesis and is divided into two sections. The first section provides an overview of the literature concerning constructs identified as job demands, job resources and outcome variables. As the literature concerning the two mediator variables was considered in chapter 2 they will not be discussed within the first section of this chapter. The second section outlines the confirmatory factor analysis (CFA) conducted on the burnout and connectedness measurement tools and describes the psychometric properties of the other scale items, including any modifications to these items.

4.1 Job Demands

Job demands are the psychological, physical, social or organisational aspects of work associated with physiological and psychological costs (Demerouti et al. 2001). The five job demands selected in this study include:

- Role ambiguity
- Volunteering-family conflict (V-FC)
- Volunteering-work conflict (V-WC)
- Work-volunteering conflict (W-VC)
- Poor working relationships with regular officers

4.1.1 Role ambiguity

Role ambiguity occurs when individuals lack the necessary information to understand what their employer expects of them in their role (Rizzo et al. 1970). Unlike specific tasks, role expectations consist of specific behaviours an individual is expected to display when conducting tasks. Role ambiguity therefore occurs when individuals experience uncertainty concerning these behaviours (Turbe and Collins, 2000).

Individuals may develop certain coping behaviours to deal this demand or defensive mechanisms to alleviate its impact when experiencing role ambiguity (Rizzo et al. 1970). Role ambiguity can reduce motivation as individuals lack knowledge regarding the most effective job behaviours, weakening both effort-performance and performance-to-reward expectations (Jackson and Schuler, 1985). Meta-analyses supports the notion that role ambiguity is related to both reduced role performance (Tubre and Collins, 2000) and organisational citizenship behaviour (Eatough et al. 2011).

Rizzo et al. (1970) argue that role ambiguity is influenced by the presence of a strong chain of command. It is suggested that a well-defined chain of command with specific task or position related responsibilities results in higher employee satisfaction and lower levels of strain. Consequently Jaramillo et al. (2005) suggest the role ambiguity may not be an antecedent of stress within command and control organisations such as the police. However, Holgate and Clegg (1991) found significant relationships between role ambiguity and both depersonalisation and emotional exhaustion in probationer officers. Other studies have confirmed the existence of role ambiguity in police work (Brown and Campbell, 1994), whilst Abdollahi (2002) suggests that the dual role of the police officer, as law enforcer and social worker, can lead to significant role conflict and ambiguity. Supervisory feedback is suggested as one possible means by which role ambiguity may be reduced in police work (Johnson, 2012). Specials are likely to face similar demands whilst on duty but do so as volunteers, which may pose additional problems. For instance, non-profit organisations are often considered to be more environmentally uncertain contexts with limited resources (Lynn, 2003). This may lead to conflicting expectations as to how certain tasks should be conducted, particularly when specials work alongside regular officers. Alternatively, role ambiguity may be an innate characteristic of volunteering as different individuals may see their activity as either a work or leisure pursuit (Merrell, 2000). Links between role ambiguity and

outcomes such as satisfaction, burnout and retention have been established in non-profit contexts such as HIV/AIDS volunteerism (Ross et al. 1999; Cox et al. 2010), human service organisations (Kulik, 2007), sports management (Sakires et al. 2009; Doherty and Hoye, 2011) and non-profit management boards (Wright and Millesen, 2008). Organisations can take action to alleviate the experience of role ambiguity (Walker et al. 1975) through, for instance, training and feedback (Jackson and Schuler, 1985; Wright and Millesen, 2008). The links between role ambiguity, satisfaction and commitment found in both paid and unpaid contexts make understanding the impact of this variable within the Special Constabulary important.

4.1.2 Inter-role conflict

Inter-role conflict is experienced when two or more sets of role pressures associated with a group membership become incompatible (Kahn et al. 1964). In the case of the Special Constabulary, volunteers may experience inter-role conflict between their volunteer role and paid work or with family/home-life. The minimum hourly commitment within Special Constabulary volunteerism suggests that inter-role conflict may be an important source of stress. Therefore this study appraises three types of inter-role conflict: volunteering-family conflict (V-FC), work-volunteering conflict (W-VC) and volunteering-work conflict (V-WC). The relevance of each source of conflict to the Special Constabulary is outlined below.

4.1.2.1 Volunteering-family conflict

Inter-role conflict occurs when the role pressures associated with work and family life become mutually incompatible (Greenhaus and Beutell, 1985). Therefore, the demands experienced in one role (e.g. volunteering) make participation in another role (e.g. family) life difficult (Ayree et al. 1998). According to role theory, as individuals become more involved in their work environments they have less energy and time to direct towards family commitments (Hochschild, 1997). Although the relationship between

these pressures may be reciprocal (Frone et al. 1992; Frone 2003; Hall et al. 2010), previous research has suggested that the impact of work factors on family life is stronger than the reverse (Carlson et al. 2000; Byron, 2005; Amstad et al. 2011). For that reason, this thesis considers only the relationship of volunteer work on family life. Cowlishaw et al. (2010) argued that despite the potential for conflict between volunteering and other roles there has been little voluntary sector research to address these issues.

The impact of work-family conflict is widely recognised in studies of paid workers (Byron, 2005), including police officers (He et al. 2002; Waters and Ussery, 2007). In a review of the empirical findings Allen et al. (2000) found strong support for the relationship between work-family conflict and various outcomes such as reduced job satisfaction and well-being and higher levels of burnout. In longitudinal research Grandey and Cropanzano (1999) found evidence to support relationships between work-family conflict, job distress and turnover. The conflict between work and family roles is widely evidenced in studies of at-risk populations such as police officers (Waters and Ussery, 2007). Regular shift-work, greater perceived quantitative job demands and higher levels of exhaustion have all been associated with the experience of work-family conflict (Mikkelsen and Burke, 2004; Burke and Mikkelsen, 2006; Matrinussen et al. 2007). Work-family conflict has also been found to impact on levels of police officer job satisfaction (Howard et al. 2004).

In relation to volunteering, Dandeker et al. (2010) explored the complex relationship between family welfare and military service in the Territorial Army (TA) finding family concerns, including the need of volunteer to put their family first was an important factor driving resignations. Volunteering-family conflict has also been linked to the resignation of volunteer firefighters in Australia (Cowlishaw et al. 2008), whilst both direct and indirect links have been found between work-related antecedent factors such as time invested on-call and burnout through volunteering-family conflict (Cowlishaw et

al. 2010). Work-family conflict has also been found to have an indirect influence on various outcome measures such as retention in samples of volunteer ambulance staff and palliative carers in Australia (Lewig et al. 2007; Huynh et al. 2012a).

With regards to the Special Constabulary, domestic concerns have been cited as factors influencing retention (Mirrlees-Black and Byron, 1994). Gaston and Alexander (2001) provide evidence to suggest that a stable family life may enable volunteers to provide more time to the Special Constabulary. In conclusion Gaston and Alexander (2001: 65) suggest that, “recruits who are settled in their personal lives and thus have fewer life choices still to make are more likely to give a greater length of service”. This suggests that families are likely to be supportive structures that facilitate volunteering, highlighting the importance of analysing the impact of inter-role conflict within this context.

4.1.2.1 Work-volunteering and volunteering-work conflict

In addition to the conflict with family life this study also sought to determine whether volunteers experienced conflict with any paid work they might hold. The relationship between paid work and volunteering is little understood however, evidence suggests that holding both paid work and volunteer roles simultaneously can have a positive influence on health in old age (Luoh and Herzog, 2001). Volunteering has been found to compensate for the lack of enrichment found in paid work (Grant, 2012), whilst volunteer work has also been associated with enhanced absorption in paid work rather than interference (Rodell, 2013). Wilson and Musick (1997) suggest favourable paid work environments can facilitate volunteering. The skills required in paid work may spill-over into volunteering, in turn making these individuals more attractive to volunteer involving organisations, suggesting that each role may mutually benefit the other. Whilst some individuals volunteer to fulfil needs missing in paid work others will do so because it provides them with the opportunity to use their skills across different domains (Wilson, 2000).

Work and study commitments have been cited by former specials as factors influencing retention (Mirrlees-Black and Byron, 1994; Gaston and Alexander, 2001). However, despite the apparent spill-over of benefits between these different domains, studies have failed to examine whether paid and volunteer work may be in conflict with each other. Conflict between these two domains is more likely to be an issue within emergency service volunteering, where duties may become extended because of major incidents, or where individuals are required to attend court to give evidence. Therefore, to address this gap in the literature this study will be the first to examine the potential for inter-role conflict between paid work and volunteering.

4.1.3 Relationships with regular officers

The relationship between volunteers and paid staff is one of the most frequently cited issues reported by volunteer coordinators (Netting et al. 2004). For instance paid staff have been found to resist the involvement of volunteers in service delivery (Brudney, 1990). Tensions may develop between volunteers and paid professionals in similar roles, particularly where volunteers begin to demonstrate expertise (Patton, 1989). However, supportive environments that promote positive relations between staff and volunteers are more likely to demonstrate enhanced retention rates (Hobson et al. 1996; Mitchell and Taylor, 1997). Wilson (2012) suggests that more research is needed to uncover the ways in which paid staff and volunteer relations impact on issues such as motivation and satisfaction.

The working relationships between regular officers and specials have been a particular area of concern for volunteer coordinators within the Special Constabulary. Virtually all publications examining this form of volunteering highlight the fractious relationships between these two groups (Gill, 1986; Leon, 1991; Gill and Mawby, 1990a; 1990b; Mirrlees-Black and Byron, 1994; Gaston and Alexander, 2001; NPIA, 2010a). Most recently the NPIA's (2010) Special Constabulary survey found that nearly half (43%) of specials reporting negative experiences during their volunteering cited the attitudes of

regular officers as being problematic. Previous research suggests that the attitudes of regulars towards specials may be the result of an unwillingness to expose volunteers to the margins of police sub-culture. Gill (1986) suggests that standing as a public voice within state services, specials may bring attention to certain forms of behaviour that pose a threat to the fabric of police sub-culture and the officer's method. Alternatively, many regulars are concerned that the involvement of volunteers in policing may erode the professional status and economic position of regular officers (Leon, 1991).

A review of the limited Special Constabulary research reveals at least four conceptually relevant factors that influence the relationships between regular and specials. Leon (1991) suggests that a longstanding pattern has developed in which specials feel *under appreciated* by regular officers. Similarly Mirrlees-Black and Byron (1994) found that 42% of specials felt underappreciated by regulars. Another frequently reported issue has been the lack of understanding between regulars and specials concerning the motivations of those who chose to do police work for free (Whitaker, 1979). Gaston and Alexander (2001) found a substantial discrepancy between the *reasons specials gave for volunteering* and the perceptions given by regulars. Regular officers were shown to overestimate career-based motives and under estimate more altruistic reasons for volunteering. Leon (1991) suggests that some regulars viewed specials as 'uniform fetishists'. Mirrlees-Black and Byron (1994) report similar findings, suggesting that over three-quarters of specials felt that regular officers had no understanding of their motivation to volunteer. Research also suggests a *lack of cooperation* between regulars and specials. It has been demonstrated how regular officers have been reluctant to patrol with specials due to their perceived lack of training or general unsuitability that may render them as a liability or even dangerous to work with (Gill and Mawby, 1990a; 1990b; Leon, 1991). For instance, prior work has revealed how regulars view the Special Constabulary as a potentially incompetent backup (Gill and Mawby, 1990b) consisting of 'regular rejects' (Leon, 1991). Although regulars generally

perceived their working relationships in a more negative light than specials (Leon, 1991), research suggests that volunteers hold their regular counterparts in high regard (Mirrlees-Black and Byron, 1994). Another area of concern identified in the literature has been the general resistance of regulars towards volunteer involvement in police work. Mirrlees-Black and Byron (1994) found that a substantial proportion of specials felt that regular officers were *anti-specials*. This led to the general feeling that regulars did not welcome specials into police work and instead avoided or ridiculed them.

4.1.4 Reciprocity

Although not considered as a job demand within theoretical model of retention proposed in this study, this research also sought to understand whether the perceived lack of reciprocity between volunteers and members of the public influenced burnout. Within the Special Constabulary, these attitudes develop as individuals begin to perceive an imbalance between the investments they make towards members of the public and the outcomes they receive from their volunteering. The notion of reciprocity is an important aspect of social exchange theory as an individual's actions towards others are based upon the expectation of a valued response (Bove et al. 2009). A state of reciprocity is achieved when an individual's interpersonal investments are proportional the investments of others or to the outcomes received (Bakker et al. 2000). A deterioration of the relationship between specials and members of the public in terms of reduced reciprocity may have an adverse effect on participation levels within the Special Constabulary. For instance, Lee and Brudney (2009: 525) demonstrated that as rational individuals, the perception of the benefits derived from volunteering is contingent upon the individual's sense of community embeddedness. This suggests that reduced reciprocity may impact upon retention as specials find their involvement in police work threatens the ways they perceive their relationship with the wider community.

4.1.5 Conclusion

This review has identified five potential job demands and identified their relevance to the Special Constabulary. Volunteers may experience role ambiguity concerning uncertainty around the behavioural expectations of them from others within the police. Alternatively volunteers may experience inter-role conflict between their volunteering, family and work lives. The final demand identified here is the potentially negative nature of the working relationships between paid staff and volunteers. The following section considers potential job resources that may motivate specials to continue volunteering.

4.2 Job resources

Job resources are the physical, psychological, social, or organisational aspects of work that are instrumental in assisting employees in reaching their objectives, encouraging personal growth and development as well as limiting the impact of job demands (Bakker and Demerouti, 2007). Overall 7 potential job resources were identified:

- Social support from:
    - Regular officers
    - Co-volunteers
    - Supervisors
    - Family members
- Perceived organisational support
- Performance feedback
- Task significance
- Perceived access to training
- On-the-job learning
- Challenging assignments

4.2.1 Social support

Social support is one of the most widely studied job resources in samples of paid workers and is considered functional in helping individuals achieve their work goals (Bakker and Demerouti, 2007). The basic premise of social support is that friends, family and co-workers provide psychological and material resources to individuals

who, as a consequence of this, have better health (Cohen and Wills, 1985). Social support is associated with a number of potential benefits such as lower levels of strain (Schwarzer and Leppin, 1989; Viswesvaran et al. 1999) as well as better role functioning and enhanced well-being (Wang et al. 2003).

Social support can help reduce the experience of stress in a police work (Brown et al. 1999; Morash et al. 2006). Increased satisfaction with the social support provided may decrease occupational stress in officers (Graf, 1986). Supervisory support has been linked not only to a reduction in demands, such as role ambiguity, but also to increased levels of satisfaction within police officers (Brunetto and Farr-Wharton, 2003). Furthermore, the provision of social support has been related to lower levels of suicide ideation in Norwegian police officers (Burke and Mikkelsen, 2007). Its importance within police work led Noblet et al. (2009) to conclude that social support should be taken into account when developing strategies to reduce officer stress. In their study of US police officers Cullen et al. (1985) found supervisory support to mitigate against work stress, whilst family support was instrumental in alleviating psychological discomfort. Martinussen et al. (2007) found that a combined measure of supervisory and co-worker support helped reduce levels of burnout, whilst those experiencing higher levels of work-family pressure scored lower on social support.

In a volunteer context social support has been found to be predictive of commitment to volunteering (Snyder et al. 1999). Cox et al. (2010) found direct and indirect links between co-volunteer support and organisational satisfaction. Huynh et al. (2012a; 2012c) also found support for the significance of co-volunteer, supervisory and family support in their studies of Australian volunteers. Conversely, Hidalgo and Moreno (2009) found little support for the role social support in predicting retention within Spanish volunteers. Furthermore, Omoto and Snyder (1995) found a negative relationship between social support and duration of service that they suggested was related to the stigmatisation of AIDS volunteers. Whilst volunteering may be a

source of social support for those who lack it, volunteers with strong support may find that their social networks act as sanctioning bodies against activities deemed to be less socially desirable (Snyder et al. 1999). As such, the maintenance of social support may detract from other resources. Hobfoll (1989) suggests that social support is beneficial when contributing towards situational needs and either benign or possibly harmful when not. Such findings may go some way to explain the inconsistent results regarding the importance of social support in voluntary settings. Whilst the provision of social support within paid work is generally viewed as a positive resource, within volunteer work support may only be valued when it helps volunteers to increase their sense of efficacy (Maslanka, 1996).

The contradictory findings between paid police contexts and volunteering suggest further investigation of the impact of social support within the Special Constabulary is required. This study recognises the importance of the purpose of social support and ways in which different forms of social support function. Therefore, in addition to examining the impact of supervisory, co-volunteer and family support this study is the first to consider the impact of social support provided by paid members of staff (regulars). Although regulars are generally understood be resistive of volunteers, when provided their social support may be highly valued. Distinguishing between the different sources of social support and their impact on outcomes such as retention will enable volunteer managers to more accurately determine where additional support should be targeted.

4.2.2 Perceived organisational support

In addition to the support offered by individuals, the level of perceived organisational support available may also influence volunteer outcomes such as retention. Organisational support theory suggests that individuals form a general set of beliefs regarding the extent to which an organisation values their contribution and is concerned about their well-being (Eisenberger et al. 1986). The importance of

discretionary organisational behaviours towards positive outcomes is also highlighted by social exchange theory (McFarlane et al. 1993). Discretionary behaviours help develop a sense of obligation towards the organisational mission, encouraging individuals to adopt their organisational membership and role into their social identity (Rhoades and Eisenberger, 2002). This absorption helps bolsters the view that individual effort is being recognised and rewarded (Rhoades and Eisenberger, 2002). Meta-analysis has revealed positive relationships between perceived organisational support and outcomes such as individual performance, job satisfaction, commitment and reduced withdrawal behaviours (Meyer et al. 2002; O'Driscoll and Randal, 1999; Rhoades and Eisenberger, 2002).

Shane (2010) suggests that perceived organisational support could have a positive influence on performance and outcomes when formal and informal policies help individuals to feel that they are valued and productive members of the force. However, police forces are complex command and control organisations that combine the structural traits of the military and professional bureaucracies (Ralston and Chadwick, 2010). Furthermore, police officers have been shown to display a lack of trust in management (Crank and Caldero, 1991). Beck and Wilson (2010) suggest that because of a general perception within police work that management does not support its officers, support is more valued when individually provided. Whilst organisational support has been found to positively influence officer tenure (Currie and Dollery, 2006), studies have failed to find statistically significant links between support and reduced cynicism or officer job satisfaction (Johnson, 2012). Within the Special Constabulary, increased support may influence the extent to which specials feel valued (NPIA, 2010a) however, its impact on retention has not been assessed.

Although the organisational experiences of volunteers within hybrid-type organisations such as the Special Constabulary have received little attention (Ellis

Paine et al. 2010b), the importance of organisational support has been identified in other non-profit contexts (Starnes and Wymer, 2001; Boezeman and Ellemers, 2008). For instance, Farmer and Fedor (1999) found that perceived organisational support impacted on levels of participation as well as withdrawal ideation. Once again there appear to be contradictory findings between police research, on the one hand that is largely dismissive of the effects of organisational support, and non-profit research suggesting it may have a positive influence on retention. These discrepancies highlight the importance of considering the potential impact of organisational support within the Special Constabulary.

4.2.3 Performance feedback

Performance feedback is functional in enabling individuals to achieve their work goals (Bakker et al. 2011a) and promotes job competence (Salanova and Schaufeli, 2008). The lack of performance feedback has been found to be a significant predictor of burnout (Lee and Ashforth, 1996). Job resources including performance feedback have been found to interact with physical demands and exhaustion (Xanthopoulou et al. 2007b), as well as between more general job demands and burnout (Bakker et al. 2003c). Schaufeli and Bakker (2004) report that performance feedback is positively related to work engagement, whilst Salanova and Schaufeli (2008) suggest that job resources including feedback indirectly predict proactive behaviour through work engagement. There is also longitudinal support for the importance of feedback in predicting future levels of work engagement (Schaufeli et al. 2009a) in paid employees.

In relation to police work, Bakker and Heuven (2006) suggest that performance feedback may be critical in helping police officers to reduce the negative impact of emotional dissonance on well-being. However, feedback from civilians about job performance has been found to have no impact on either individual performance or attitudes towards those communities served (Wells et al. 2005). Furthermore, the

nature of police work including the context specific nature of many of the tasks carried out, the contradictory goals set for police officers and the fact the police officers are often not visible to their supervisors can make the provision of performance feedback challenging (Johnson, 2012). Despite this, a lack of feedback has been cited as a negative workplace experience that has been found to significantly predict police officer stress (Zhao et al. 2002; Hassell and Brandl, 2009). From a volunteering perspective, a limited number of voluntary sector studies suggest that performance feedback may play an important role in reducing job demands and promoting satisfaction with the role. Wright and Millesen (2007) found that the provision of feedback to non-profit board volunteers lessened the impact of role ambiguity, whilst Huynh et al. (2012a) demonstrated the positive effect of feedback on satisfaction. Performance feedback is likely to be an important job resource to specials, who may view their volunteerism as providing a route into paid policing. In particular performance feedback may aid professional development and the achievement of an individual's goals whilst volunteering, as well as alleviate any stress that might be experienced.

4.2.4 Task significance

Task significance is a measure of the extent to which a job or role influences the work or lives of others either inside or outside the organisation (Hackman and Oldham, 1975). Human-service orientated jobs are those that are most likely to feature higher levels of task significance (Morgeson and Humphrey. 2006) and task significance has been shown to positively influence job dedication through increased perceptions of the social impact and worth of the work (Grant, 2008). The impact of task significance has rarely been addressed within paid police work, although when considered it appears to have little impact of stress (Buker and Wiecko, 2007). There is however evidence to suggest that the significance and meaningfulness of the work provided to specials may have an important impact on volunteers'

perceptions towards their work. The lack of meaningful deployment has been cited in a number of Special Constabulary studies as a prominent cause of dissatisfaction, whilst the chance to make a difference within the local community is often reported as one of the most enjoyable aspect of the role (Gaston and Alexander, 2001; NPIA, 2010a). In the wider volunteer context, Millette and Gagné (2008) found task significance to have a significant positive correlation with satisfaction, whilst the perceived meaningfulness of the work provided was been found to be a significant tool towards the retention of stipended volunteers (Mesch et al. 1998). Whilst there is insufficient evidence to understand the importance of task significance within paid police work, this study will assess whether it influences volunteer outcomes within the Special Constabulary.

4.2.5 Perceived access to training

Training is known to have a positive influence on the well-being of paid employees (Schaufeli and Bakker, 2004; Salanova et al. 2005) and may also improve retention rates within volunteering (Lammers, 1991; Hager and Brudney, 2008). The importance of training within the Special Constabulary has been confirmed by a number of studies. Gaston and Alexander (2001) found that the provision of additional training was cited as one feature that would encourage former specials to re-join, whilst training helped officers to feel more valued by the force (NPIA, 2010a). However, previous studies have looked at the provision of training or the demand for more training, rather than seeking to understand whether general perceptions about its availability might be beneficial. Specials are each provided with the same initial 10-week training course before going out on duty. Whilst some additional training is mandatory (e.g. officer safety, first aid), attendance at other session is not and depends on the ability of the Special Constabulary to communicate training sessions and the receptiveness of volunteers towards this. Training opportunities are motivational because they help volunteers to deal with the demands of their roles.

Therefore, the extent to which officers perceive the availability of training may have a significant impact on outcomes such as retention.

4.2.6 On-the-job learning

Unlike perceived access to training, on-the-job learning represents unplanned or unscheduled training and learning that occurs whilst working. On-the-job learning helps to develop human capital, which has been found to be instrumental in developing and maintaining levels of formal volunteering (Wilson and Musick, 1997). Research shows that volunteers who are able to satisfy the need for competence within their roles are more likely to experience a sense of work engagement and therefore less likely to leave their roles (Haivas et al. 2013). On-the-job learning opportunities have been found to be more salient in challenging contexts (DeRue and Wellman, 2009), suggesting that this type of resource may be valuable to specials. Whilst the transfer time between formal training and the application of knowledge may be delayed, on-the-job learning fosters motivation because it provides a direct opportunity to use newly acquired knowledge and skills (Aragón-Sánchez et al. 2003). As specials enter their duties as non-independent officers looking to complete their SOLAP, the provision of on-the-job learning is likely to be beneficial to volunteers who need to demonstrate competency through the completion of different tasks. Continuous learning has been identified as an important aspect of Special Constabulary volunteerism (NPIA, 2010a), as volunteers need to keep up-to-date with changes to procedures and laws. The impact of on-the-job learning has yet to be assessed within a volunteer context however, here it is suggested as an important job resource that may positively influence outcomes such as retention.

4.2.7 Challenging assignments

The final volunteer job resource assessed within this research is the provision of challenging assignments. Challenging situations promote motivation because they question existing knowledge and expertise, prompting learning and development (Dragoni et al. 2009; DeRue and Wellman, 2009). Consequently, challenging assignments inspire learning as individuals recognise gaps between their actual and aspirational level of competency, whilst also seeking to avoid or mitigate any negative outcomes associated with under performance (McCauley et al. 2010). Preenen et al. (2011) suggest that challenging assignments are motivational in paid work because they enhance the perceived meaningfulness of the work (Hackman and Oldham, 1980), helping individuals to satisfy their needs of competency and autonomy (Ryan and Deci, 2000). Job challenge has been associated with job satisfaction (Kirk-Brown and Wallace, 2004), whilst interns who were exposed to challenging assignments were more likely to have their potential career advancement positively appraised by their supervisors (De Pater et al. 2009).

Whether or not job challenge is motivational, particularly within contexts such as the Special Constabulary, is an important aspect of volunteering that needs to be addressed. Police work carries with it the potential to expose individuals to demanding and sometime traumatic situations (Abdollahi, 2002) that may have a long-term impact on health (Brown et al. 1999). However, demanding situations within police may not necessarily be perceived stressful (Biggam et al. 1997) and in many cases may be viewed as situations to be overcome or mastered (Alexander et al. 1993). Therefore, the impact of job challenge with the JD-R model is likely to be dependent upon the ways in which each individual challenge is perceived. The challenge-stressor hindrance-stressor framework (Cavanaugh et al. 2000) was introduced as a means to distinguish between job characteristics that thwart personal growth and development (hindrance stressors), and those that whilst

depleting energy stimulate growth (challenge stressors). Challenge stressors are thought to be motivational because they are seen as things to be overcome. This distinction between different job characteristics was applied to the JD-R model of well-being following a number of studies revealing inconsistent relationships between job demands and work engagement. Meta-analysis confirmed that certain challenge stressors (e.g. time pressure, workload) could be differentiated from hindrance stressors (e.g. role ambiguity) through their relationship with engagement (Crawford et al. 2010). Therefore whilst challenge stressors correlate positively with strain such as burnout (LePine et al. 2004; LePine et al. 2005), they have also been found to have a consistent positive relationship with work engagement, satisfaction, commitment and turnover (Podsakoff et al. 2007; Crawford et al. 2010). As police work is associated with demanding and traumatic work it is important to recognise that job challenge may not always be positively appraised. Whilst specials are less likely to be exposed to levels of job challenge that might adversely affect their well-being or determination to continue, it will be important to understand whether this variable also impacts upon burnout therefore acting as a challenge stressor rather than a job resource.

Although the potential for job challenge to influence burnout and reduce retention may exist, it is also important to recognise the potential positive role of this resource within volunteering. Omoto and Snyder (2008) suggest that volunteers who are able to take away something from their volunteering are more likely to remain in their roles, whilst Lammers (1991) suggests that job challenge may be an important aspect of role design within volunteer samples. Perkins (1989) found self-development and excitement as important rewards within volunteer firefighting, whilst Thompson and Bono (1993) found that volunteer firefighters perceived their voluntary work to be both more exciting and challenging than their paid work. Studies have also found links between job challenge and satisfaction in samples of

volunteers (Gidron, 1983; Jamison, 2003). Although the provision of job challenge may foster learning and development, research examining the processes by which satisfaction and retention is influenced in volunteering have produced conflicting results. For instance Boezeman and Ellemers (2009) found no relationship between the satisfaction of competence needs and retention, whereas Havias et al. (2013) found both direct and indirect links between the satisfaction of competency needs, work engagement and retention. Tuckey et al. (2012) suggest that the challenging demands of volunteer firefighting may positively influence work engagement if individuals are provided with sufficient resources.

Challenging assignments may also be motivational within the Special Constabulary. They may provide specials with the opportunity to demonstrate competency in front of regular officers and other volunteers, as well as aid the learning process, enabling the completion of the SOLAP and progression within the Special Constabulary. Despite the theoretical and empirical links between job challenge, motivation and outcomes found in samples of paid workers, the same relationships remain under examined within volunteer contexts. In particular, it remains unclear whether job challenge is desirable within potentially higher stress roles such as policing, in which the work is reactive and unpredictable. The relationship between the provision of challenging assignments and burnout remains unexamined within volunteer samples, as does the impact of this job characteristic on the motivational pathway of the JD-R model through constructs such as organisational connectedness. Therefore, the impact of challenging assignments within the theoretical propositions of the JD-R model will also be tested by this research.

4.2.8 Conclusion

Section 4.2 of this thesis has identified various different job resources that may be perceived as motivational within the Special Constabulary and therefore have a positive influence on outcomes such as retention. Now that the independent

variables have been considered, Section 4.3 of this thesis identifies the various outcome measures examined within this research.

4.3 Outcome measures

4.3.1 Volunteer job satisfaction

Establishing the underlying motivational factors associated with volunteer job satisfaction is an important step towards understanding the nature of the relationship between an individual and their voluntary work (Boezeman and Ellemers, 2009). There are numerous studies examining the factors associated with job satisfaction in paid workers (Spector, 1997) however, less research has been conducted within volunteer work (Galindo-Kuhn and Guzley, 2001). Tools such as the job characteristic model (Hackman and Oldham, 1975) and the JD-R model (Demerouti et al. 2001; Bakker and Demerouti, 2007) have been instrumental in highlighting the relationships between the structure of work and outcomes such as satisfaction in paid staff. However, the nature of volunteering means that it is not possible to simply transpose knowledge regarding satisfaction and commitment from paid workers into volunteer contexts (Wilson, 2000). For instance levels of satisfaction vary between different types of paid staff roles (Wilkin, 2013) and these differences may not be restricted to paid staff. Pearce (1983) found generally lower levels of job satisfaction amongst paid workers compared to volunteers however, this study was based on organisations staffed either entirely by paid or voluntary workers and therefore failed to take into account differences between the divergent types of working environment (Liao-Troth, 2001). The measurement of volunteer job satisfaction is based on the premise that individuals continue to volunteer because they both enjoy and value what they get out of the experience (Gidron, 1983; 1985). However, US-based research suggests high levels of dissatisfaction with volunteer work (Jamison, 2003). In the absence of pay, understanding the factors associated with volunteer job satisfaction may further help with volunteer retention (Gidron, 1984). Unlike

much volunteer research that has sought to understand how motive satisfaction influences retention, this study seeks to understand the job characteristics that indirectly influence satisfaction through burnout and connectedness.

4.3.2 Organisational commitment

The success of volunteer organisations depends upon their ability to recruit and retain volunteers who hold a sense of commitment towards the goals and values of the organisation (Cuskelly and Boag, 2001). The study of organisational commitment therefore provides an opportunity to understand the links between volunteers and their organisations (Mowday et al. 1982). Meyer and Allen (1984; 1990) identify three specific components of organisational commitment that, whilst negatively related to turnover, are also expected to relate differentially to various work-related and employee-related behaviours including various job characteristics (Meyer et al. 2002). Affective commitment refers to the emotional identification and involvement of individuals within an organisation (Meyer and Allen, 1997). Research suggests that personal characteristics and work experiences are the most likely antecedents of affective commitment, whilst affective commitment also has the strongest relationship with job performance, withdrawal cognition and turnover (Meyer et al. 2002). Continuance commitment was the second component initially identified by Meyer and Allen (1984) and refers to the commitment associated with the costs of leaving the organisation. Continuance commitment is calculative in nature and therefore inconsistent often negative relationships have been found with various outcome measures (Meyer et al. 2002). However, because volunteer work is not defined by the same sense of obligation to continue found in paid work, voluntary sector research has found this form of commitment to be unrelated to various outcome measures (e.g. Liao-Troth, 2001), whilst others have chosen to omit this form of commitment from their studies all together (Boezeman and Ellemers, 2007; 2008). The third component, normative commitment, refers to the

pressure experienced by employees to remain within an organisation due to the pressures of organisational socialisation (Meyer and Allen, 1997). In light of the issues associated with Special Constabulary and police subculture, this form of commitment is likely to be of significant interest to a study of volunteer police officers.

Few studies have examined the concept of organisational commitment within paid police work (Beck and Wilson, 1997). Currie and Dollery (2006) suggest that organisational commitment is relatively low within the police and may decrease with time and experience on the job (Van Maanen, 1975). Jaramillo et al. (2005) found a negative correlation between commitment and intent to leave the police, whilst Fielding (1995) suggests that organisational commitment is an important issue for police forces to consider because it may be closely related to the effectiveness of community policing.

Various studies have highlighted the importance of organisational commitment in broader non-profit contexts (Liao-Troth, 2001; Boezeman and Ellemers, 2007; 2008). For instance Daily (1986) found that job satisfaction, autonomy, job involvement and the provision of feedback from the job all strongly predicted levels of organisational commitment in volunteer campaign workers. Cuskelly and Boag's (2001) longitudinal study of volunteer sports committee members also confirmed a significant relationship between organisational commitment and turnover.

Organisational commitment provides an opportunity to further understand the relationship between the volunteer and their organisations. The complex organisational subcultures of police forces and their impact on organisational commitment remain largely unexamined. In addition to the potentially positive influence of organisational commitment on retention, this variable may also have important operational benefits in terms of community policing. To examine the issue of organisational commitment within the Special Constabulary Meyer and Allen's

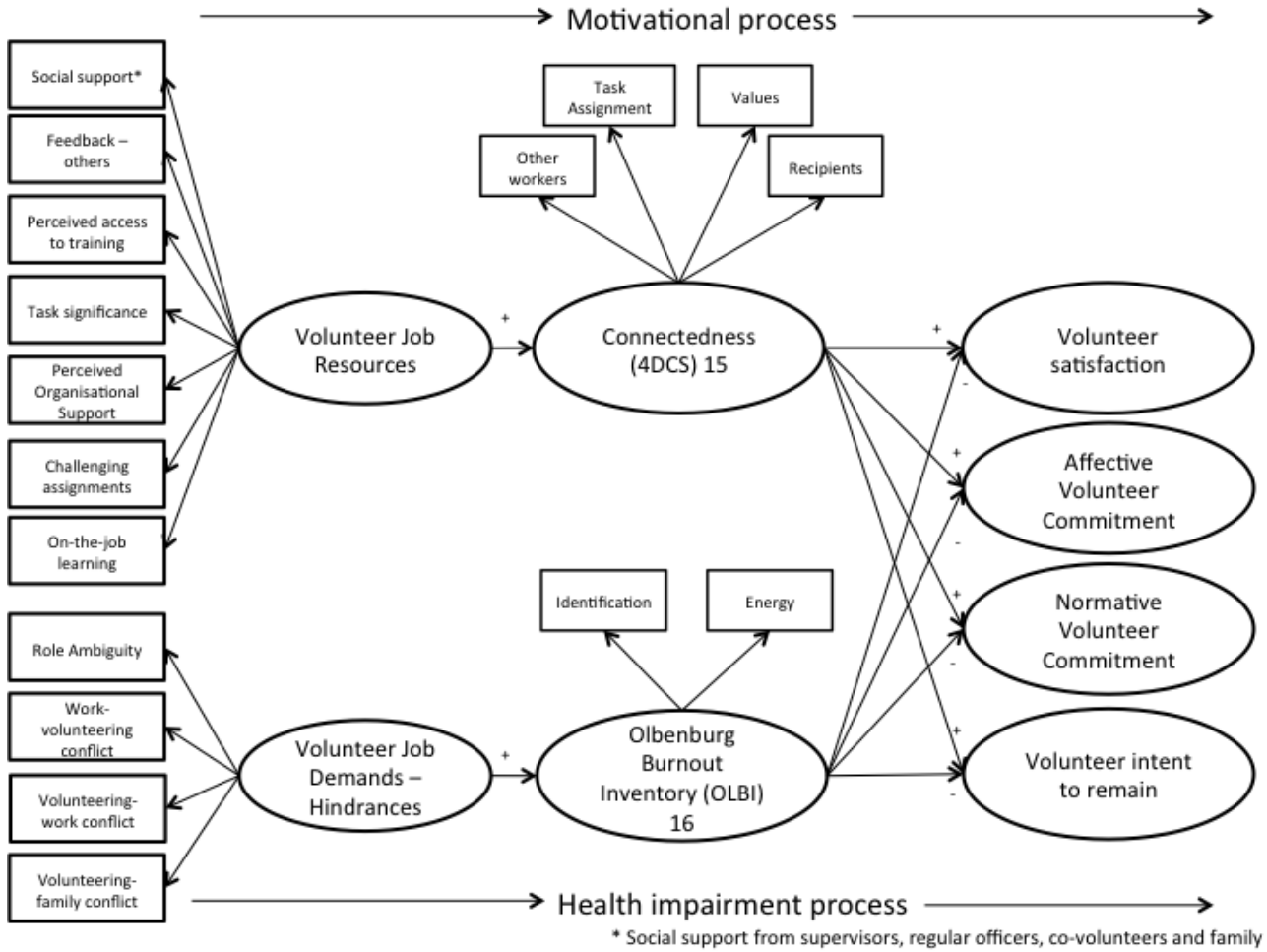
(1997) measure of organisational commitment was deployed within the current study. This enabled the researcher to examine not only the volunteer's emotional identification with the organisation (affective) but also the ways in which socialisation processes within the police influence commitment (normative). Due to its calculative nature, continuance commitment was not considered in this research.

4.3.3 Determination to continue

The theory of planned behaviour was drawn upon to measure retention within this study. This theory indicates that behavioural intentions should be considered the best predictor of actual behaviour (Ajzen, 1991). The theory of planned behaviour has been influential within studies of volunteerism in two distinct ways. First, studies have tested the theoretical propositions of planned behaviour (Warburton and Terry, 2000; Okun and Sloane, 2002; Greenslade and White, 2005; Chacón et al. 2007), identifying behaviour intentions as significant predictors of future behaviour. Second, research has adopted behavioural intentions (i.e. the determination to remain as a volunteer) as either a mediator (Dávila and Chaón, 2007; Chacón et al. 2007) or outcome variable (Lewig et al. 2007; Huynh et al. 2012a; 2012c; Gazley, 2012). In line with other academic research examining volunteer retention, this study will also an include item asking specials the extent to which they are determined to remain as a volunteer within the Special Constabulary.

Having identified each of the independent variables (job demands, job resources), mediators (burnout, engagement) and outcome measures (satisfaction, commitment, retention), figure 4.1 presents the theoretical model that will be tested in this research. However, unlike other voluntary sector retention studies, this research will individually test each of these relationships to identify those variables that have the largest impact on satisfaction, commitment and retention. The remaining section of this chapter will outline the factor structures and psychometric properties of the measurement indices used in this research.

Figure 4.1: Full theoretical model



4.4 Preliminary analysis of measurement indices

This section of the thesis examines the factor structures of burnout and connectedness, as well as the psychometric properties of the other independent and dependent variables used in this study. As many of these measurement indices were developed in paid work contexts, minor modifications were required to certain items to ensure they were appropriate for the context. Some of these changes were made on the basis of face validity whilst others were suggested after consultations with police volunteer coordinators. Cognitive interview techniques were used check the interpretation of the modified items (Willis, 2005). Confirmatory Factor Analysis (CFA) was used to examine the factor structures of both burnout and connectedness, whilst Cronbach's alpha (α) values were calculated for each measurement tool in order to assess internal reliability.

As similar Cronbach's α values can be achieved in data with very different underlying structures, a high α should not be considered evidence of unidimensionality (Grayson, 2004; Field, 2005). Values of α vary between α=0, indicating no internal reliability and α=1, suggesting perfect internal reliability. However, under certain instances its value can also be negative (Bryman, 2004). There is some conjecture as to the appropriate level of α, with levels between α=.6 to α=.7 (Hair et al. 2010) suggested as demonstrating acceptable reliability. However, Nunnally (1978) cautions that this modest level of reliability may only be appropriate in new areas of research and suggests a minimum level of α=.80 in basic research and between α=.90 and α=.95 in applied contexts. Based on a review of several studies Lance et al. (2006) suggest α=≥.70 as a theoretically weak arbitrary cut-off point which, due to the nascent stage of research into volunteer job characteristics, seems appropriate for the current study.

4.4.1 Confirmatory factor analysis (CFA)

Unlike Exploratory Factor Analysis (EFA) in which the data determines any underlying factor structure *a posteriori*, CFA enables the researcher to specify measurement

models *a priori* and then test the validity of this model against competing models (Bryant & Yarnold, 1997). CFA is a commonly used tool in the development and analysis of questionnaire data as it enables the testing of structural relationships between unobserved and complex variables (Rencher and Christensen, 2012) such as burnout and connectedness. Construct validity, the extent to which measurement items reflect the theoretical latent constructs they are designed to is important to establish, as it provides confidence that the measurement indices used in the sample reflect the wider population (Hair et al. 2010). Face validity, convergent validity and discriminant validity are important aspects of construct validity.

As the majority of the measurement indices used in this research were developed in a paid work, non-policing contexts the issue of face validity was addressed through minor modifications to items. For instance references to the 'organisation' were replaced with 'force', 'line manager' to 'supervisor' and 'job' or 'work' to 'voluntary role', 'volunteering' or 'volunteer/voluntary work'. Convergent validity refers to the extent to which items correlate with other measures of the same underlying construct (Bryant et al. 2007), assessed via the outputs of the CFA. Tests for discriminant validity examine whether the underlying latent variables within burnout and connectedness measure theoretically distinct attributes of the construct (Campbell and Fiske, 1959). This is achieved by calculating the strength to which a latent variable is able to account for more of the variance in its observed variables than can be attributed to either measurement error or to other constructs within the measurement model (Farrell, 2010). In order to assess discriminant validity the Fornell and Larcker (1981) was conducted. To conduct the Fornell and Larcker (1981) test the average variance explained (AVE) and shared variance need to be calculated. The AVE is calculated by squaring the factor loadings of each observed variable loading onto a specific construct. This figure provides the amount of variance in each observed variable accounted for by the latent construct, which when averaged across all observed variables, generates the AVE. The shared

variance is calculated by squaring the correlations between two constructs and represents the total variance of observed variables in one construct that can be explained by another. Claims of discriminant validity are upheld when the AVE of two constructs is larger than their shared variance (correlation). Fornell and Larcker (1981) also recommend that the AVE for each construct should also be higher than their squared correlation.

4.4.1.1Goodness-of-fit indices

The validity of measurement models is dependent upon their goodness-of-fit. Within CFA, absolute fit indices test whether the predicted variance-covariance matrix is equal to the sample variance co-variance matrix (Σ=S) by examining each model fitted independently of any other possibility (Harrington, 2009). Absolute fit indices therefore examine whether the amount of unexplained variance is acceptable (Harrington, 2009). Comparative fit or incremental fit indices compare the hypothesized model Σ(θ) with the independence or null model, therefore assessing fit of the specified model against a more restricted model. (Harrington, 2009; Hair et al. 2010). The absolute fit indices reported in this study are chi-square (χ^2), the root mean square error of approximation (RMSEA) and the standardised average residual value (SRMR). The comparative or incremental fit indicates consulted include the comparative fit index (CFI) and Tucker Lewis index (TLI). Appropriate cut-off values for each measure of fit can vary depending certain criteria. Therefore, table 4.1 presents cut of values based on sample size and the number of observed variables as suggested by Hair et al. (2010: 672). Generally it is recommended that researchers report several goodness-of-fit indices when assessing model fit, comparison and parsimony (Bentler, 1990; Hair et al. 2010).

Table 4.1: Goodness-of-fit

Sample Size	N < 250			N > 250		
Number of observed variables	≤ 12	12-30	> 30	< 12	12-30	≥ 30
χ^2	Non-significant *p*-values expected	Significant *p*-values even with good fit	Significant *p*-values expected	Non-significant *p*-values even with good fit	Significant *p*-values expected	Significant *p*-values expected
CFI/TLI	.97 or better	.95 or better	Above .92	.95 or better	Above .92	Above .90
SRMR	Biased upward, use other indices	.08 or less (with CFI of .95 or higher)	Less than .09 (with CFI above .92)	Biased upward, use other indices	.08 or less (with CFI above .92)	.08 or less (with CFI above .92)
RMSEA	Values < .08 with CFI = .97	Values < .08 with CFI of .95 or higher	Values < .08 with CFI above .92	Values < .07 with CFI of .97 or higher	Values < .07 with CFI of .92 or higher	Values < .07 with CFI of .90 or higher

Adapted from Hair et al. (2010: 672)

The χ^2 value represents the difference between the unrestricted sample matrix (S) and the restricted covariance matrix ($\Sigma(\theta)$) (Byrne, 2010). However, because χ^2 is sensitive to both sample size and model complexity it is not recommended as a sole measure of absolute fit. For instance models with 12 or more observed variables or sample sizes greater than n=250 are likely to result in significant *p*-values for χ^2 (Harrington, 2009; Hair et al. 2010). RMSEA attempts to overcome the issues associated with χ^2 when estimating goodness-of-fit by accounting for both sample size and model complexity (Hair et al. 2010). Hu and Bentler (1999) suggest RMSEA values of ≤.06 to be indicative of good-fit, whilst values in the range of .08 to .10 may indicate mediocre fit (MacCullum et al. 1996). AMOS also produces a closeness-of-fit (PCLOSE) statistic with *p*-values >.50 desirable (Byrne, 2010). SRMR is the standardised average residual value found when the variance-covariance matrix of the hypothesized model $\Sigma(\theta)$ is fitted to the variance-covariance matrix for the sample data (S) (Byrne, 2010). SRMR is particularly useful when comparing fit across models and lower values (≤.05) are considered to represent a better fitting model. The CFI and TFI both use different techniques to compare the fit of the specified measurement model against the null model. Values for the CFI range from zero to 1.00 with values of between ≥.90 (Hair et al. 2006) or ≥.95 (Hu and Bentler, 1999) considered to represent good fit. Although the

CFI and TLI often return similar values, the TLI is not constrained to fall between zero and 1.00. Models with good fit are those with a TLI closer to 1.00 (Hair et al. 2006; Hu and Bentler, 1999).

4.4.1.2 Oldenburg Burnout Inventory CFA analysis

In order to operationalise the OLBI within current sample minor changes were made to the wording to reflect the nature of the context. In general each item was adapted to refer to voluntary work or volunteering. For example, *'I always find new and interesting aspects in my work',* was adapted to, *'I always find new and interesting aspects in my voluntary work'*. Whilst the statement, *'After my work, I usually feel worn out and weary',* was adapted to, *'After volunteering, I usually feel worn out and weary'*. Three initial models were fitted to assess the factor structure of the OLBI, with an additional two calculated with an additional negative method factor as advised by (Williams et al. 2004). The results are displayed in table 4.2.

The OLBI understands burnout to be the function of two underlying processes under which energy turns to exhaustion and dedication to disengagement (Demerouti et al. 2010). As per Demerouti et al. (2010), two measurement models were initially fitted to the data. The first examined a two-factor structure consisting of identification and energy, whilst the second examined a 1-factor structure in which each item predicted a single burnout component (table 4.2). The two-factor structure fitted the data significantly better than the 1-factor structure ($\Delta\chi^2$=94.59(*df*=1, *p*<.01) however, the fit indices were unsatisfactory. One possible explanation for poor fit could be a result of negative method bias. The items of the vigour and dedication components are all positively phrased whilst exhaustion and disengagement are both negatively phrased. Negative method bias can account for a substantial level of variance within measurement models and can complicate the interpretation of factor loadings. Therefore, as recommended by Williams et al. (2004) a negative method factor was fitted to both the one and two-factor structures.

Table 4.2: Goodness-of-fit - OLBI

	χ^2	*df*	χ^2/df	*p*	CFI	TLI	RMSEA	PCLOSE	SRMR
			N = 272						
2 Factor	266.66	103	2.589	.000	.84	.81	.08	.000	.07
1 Factor	361.35	104	3.474	.000	.75	.71	.10	.000	.08
2 Factor (negative method factor)	173.99	95	1.831	.000	.92	.90	.06	.238	.06
1 Factor (negative method factor)	246.96	96	2.573	.000	.85	.82	.08	.000	.07

Accounting for negative method bias, the two-factor structure fitted the data significantly better than any of the other measurement models. Despite the improvement to model-fit, the revised two-factor model did not satisfy tests for discriminant validity, as the average squared factor loadings across the identification and exhaustion components (AVE=.36) was not greater than the shared variance/correlation between the burnout components (*r* =.48). Inspection of the factor loadings indicated that ded13 did not load significantly onto the identification factor, whilst the loadings for both dis6 and exh2 were also weak. Although both the loadings for dis6 and exh2 were significant, reliability analysis indicated that the removal of these items would further increase the internal consistency of the scale. On this basis these three variables were removed and one and two-factor structures were re-specified.

A comparison of the original 16-item model and the revised 13-item two-factor solutions indicated that the omission of these three variables results in a significantly better fitting model with $\Delta\chi^2$=65.945 (*df*=37, *p*<.01). There was also a slight improvement in the goodness-of-fit indices χ^2: (58 *N*=272)=108.045, *p*<.001; χ^2/df=1.863; CFI=.95, TLI =.93; SRMR=.06; RMSEA=.06. However, the Fornell and Larcker test was unable to confirm discriminant validity between the identification and exhaustion components. One possible explanation for this may be the fact that previous research indicates that

exhaustion and vigour may constitute only a weak to moderate energy dimension (González-Roma et al. 2006). Similarly the construct's original authors found that exhaustion and vigour represented two independent energy dimensions (Demerouti et al. 2010). To address issues over model fit and discriminate validity, three additional measurement models were fitted. The first separated exhaustion and vigour into their separate components and alongside identification represented a three-factor solution. The remaining two models specified two-factor solutions were one of the energy components was excluded

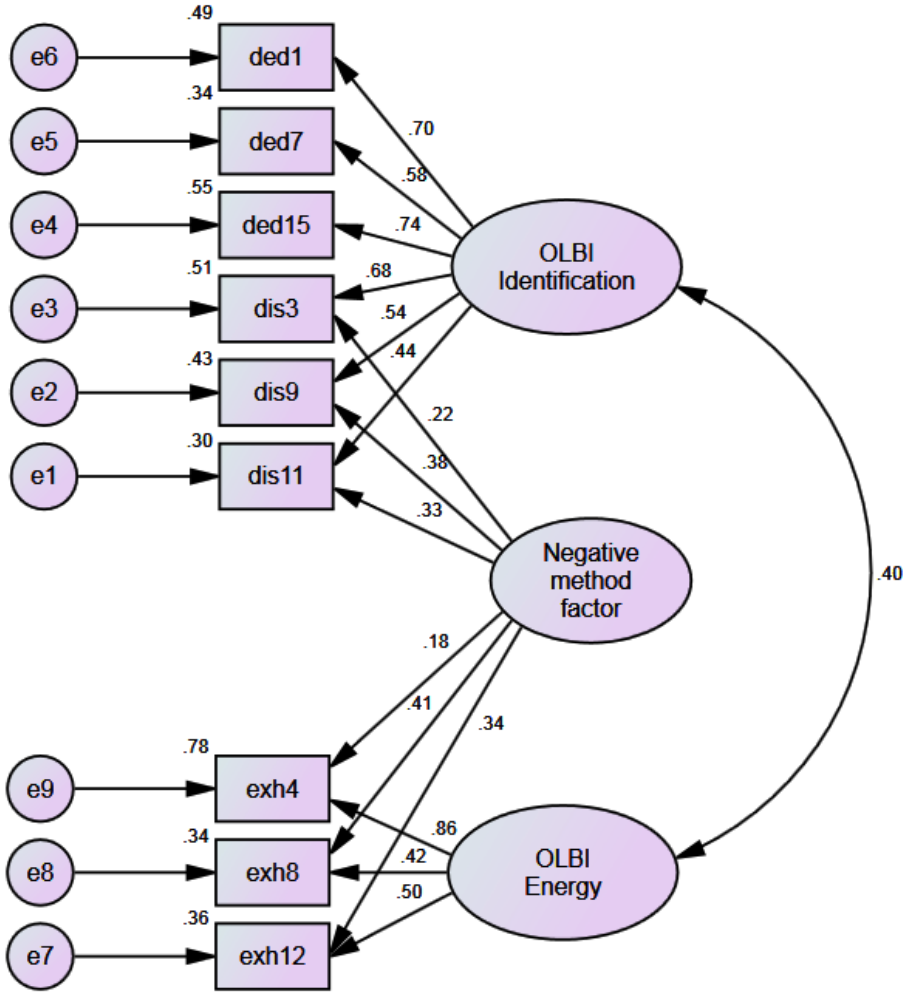
Although each of the three alternative models displayed sufficient model-fit, the three-factor model was the least well fitting (table 4.3). Despite this, even the three-factor model fitted the data better than the 13-item two-factor model ($\Delta\chi^2$=20.165 (*df*=2, *p*<.001)). This would appear to support previous findings suggesting that the energy dimensions of OLBI might represent independent constructs (González-Roma et al. 2006; Demerouti et al. 2010). The model excluding vigour had a marginally better fit than the model with exhaustion excluded however, the difference was not statistically significant ($\Delta\chi^2$=15.19 (*df*=11, *p*>.05)). The key distinction between the final two-factor models was found when conducting the Fornell and Larcker test, as only the model excluding vigour was able to achieve discriminant validity.

Table 4.3: Goodness-of-fit – revised OLBI

	χ^2	*df*	χ^2/df	*p*	CFI	TLI	RMSEA	PCLOSE	SRMR
			N = 272						
3 Factor (exhaustion, vigour, identification)	87.88	56	1.57	.004	.97	.95	.05	.628	.05
2 factor, exhaustion excluded	39.06	31	1.26	.152	.99	.98	.03	.863	.04
2 factor, vigour excluded	23.87	20	1.19	.248	.99	.99	.03	.844	.03

The average squared multiple correlations of the two burnout components (AVE=0.45) was greater than their shared correlation (0.40^2=0.16) in the model in which vigour was excluded. Although Fornell and Larcker (1981) also recommend that the AVE for each item should be higher than their squared correlation, the two-factor 9-item OLBI structure excluding vigour represented the best fit available (figure 4.2). All absolute and incremental goodness-of-fit indicates are within acceptable levels and the model had achieved discriminant validity.

Figure 4.2: Final factor structure: OLBI



The resultant factor structure resulted in a six-item disengagement scale and a three-item exhaustion scale (table 4.4). Reflecting the author's original scale, each item was

rated on a four-point Likert scale (1 strongly disagree, 4 strongly agree). Items ded1, ded7 and ded15 were recoded so that a higher score indicated greater disagreement with the statement and therefore greater levels of burnout. Reflecting this recode, the identification items will now be referred to as disengagement whilst the energy items as exhaustion. As these items were already negatively phrased no recording was required. Finally both disengagement (α=.79) and exhaustion (α=.70) achieved acceptable levels of internal consistency, although it is noted that the internal consistency for exhaustion is at the lower end of what is typically deemed acceptable within the social sciences.

Table 4.4: OLBI survey items

Item	Disengagement
ded1	I always find new and interesting aspects in my voluntary work [R]
ded7	I find my voluntary work to be a positive challenge [R]
ded15	I feel more and more engaged in my voluntary work [R]
dis3	It happens more and more often that I talk about my voluntary work in a negative way
dis9	Over time, one can become disconnected from this type of voluntary work
dis11	Sometimes I feel sickened by my voluntary work tasks
	Exhaustion
exh4	After volunteering, I tend to need more time than in the past in order to relax and feel better
exh8	During my voluntary work, I often feel emotionally drained
exh12	After my voluntary work, I usually feel worn out and weary

4.4.1.3 Organisational Connectedness CFA analysis

In total 15 initial models were fitted to assess the factor structure of the four-dimensional organisational connectedness scale. First a one-factor model was fitted to the data followed, by a four-factor model including each of the hypothesised connectedness components. The one factor solution was found to have poor model-fit (χ^2:(90 *N*=272)=682.01, *p*<.001; χ^2/df=7.578; CFI =.72, TLI =.67; SRMR =.14; RMSEA =.16). The four-factor solution provided a significantly better fit to the data ($\Delta\chi^2$=443.81 (*df*=6, *p*<.001) with fit indices of χ^2:(84 *N*=272)=238.20, *p*< .001;χ^2/df=2.836; CFI =.93,

TLI =.91; SRMR =.06; RMSEA =.08, however, despite improved model fit discriminant validity could not be achieved.

Table 4.5: Goodness-of-fit - connectedness

	OW, V, R	OW, T, R	T, V, R	OW, V, R
		N = 272		
NPAR	21	21	21	21
χ^2	53.22	44.94	38.84	46.63
df	24	24	24	24
p	.001	.006	.028	.001
χ^2/df	2.22	1.87	1.62	1.94
CFI	.98	.97	.99	.98
TLI	.97	.95	.98	.97
RMESA	.07	.06	.05	.06
PCLOSE	.12	.31	.52	.26
SRMR	.05	.05	.04	.05

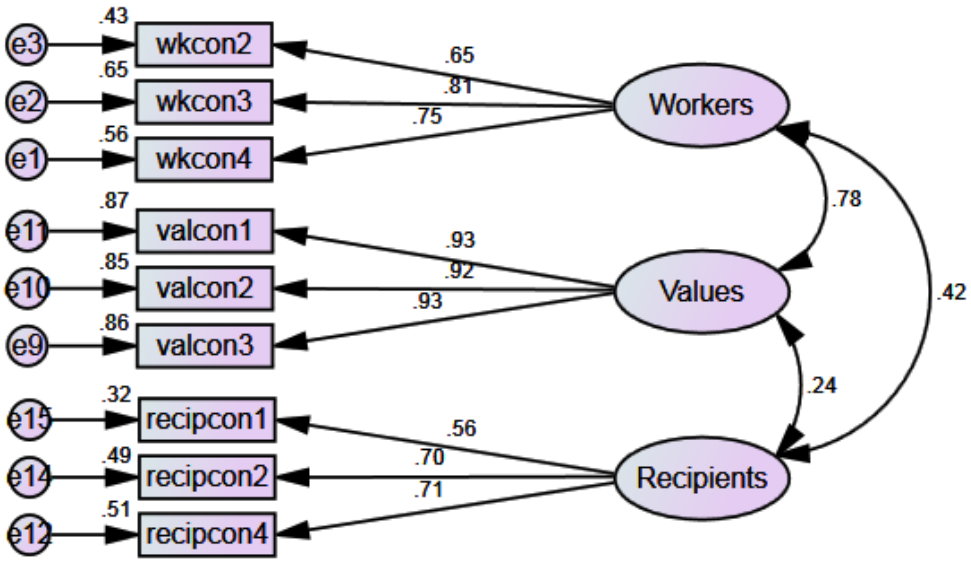
OW = other worker, T = Task, V = Value, R = Recipient

An examination of the factor loadings revealed weak factor loadings for three of the items (wkcon1, valcon4, recipcon3) onto their respective factors. Reliability analysis also confirmed that the removal of these items would improve the internal consistency of the three scales. Therefore these three items were removed from their respective sub-scales and the one and four-factor measurement models were retested. The four-factor model displayed the best model fit, also fitting the data significantly better than the original four-factor model previously tested ($\Delta\chi^2$=138.53 (*df*=36, *p*<.001) with fit indices of χ^2:(48 *N*=272)=99.67, *p*<.001;χ^2/df=2.076; CFI=.97, TLI=.96; SRMR=.05; and a RMSEA=.06. Once again however, discriminant validity between of the 4DCS scale could not be achieved.

To address these concerns 13 additional models were fitted to the data. These remaining models represented combinations of the underlying connectedness factors in a three-factor model combination (6 models), two-factor model combination (3 models) and three-factor model in which one of the connectedness components was excluded (4 models). An example of a three-factor combination model would be the inclusion of other worker and task connectedness into a single factor with recipient and

value connectedness as two separate factors. The two-factor models tested variations of two-factor combinations solutions where, for instance, other worker and task connectedness would be combined into one factor and recipient and value connectedness into another. In general each of these models, which are not reported in this thesis, displayed poor model-fit and were conducted for the sake of thoroughness. The final set of measurement models specified four three-factor solutions in which one of the connectedness components was excluded. Each of these models achieved an acceptable level of model-fit (table 4.5) however, only the model containing other worker, value and recipient connectedness achieved discriminant validity.

Figure 4.3: Final factor structure: connectedness



The CFA resulted in a three-factor structure (figure 4.3), with each factor containing three items. All items were measured on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Minor changes were made to Huynh et al.'s (2012b) original scale reflecting the context within this research was conducted, with references to 'organisation' changed to 'force'. Reliability analysis resulted in acceptable internal consistency for both other worker (α=.78), value (α=.95)

connectedness, whilst and recipient connectedness (α=.68) was just below the level of reliability traditionally deemed acceptable within the social sciences. The items contained in each of the connectedness components can be found in table 4.6.

Table 4.6: Connectedness survey items

Item	Other worker connectedness
wkcon2	I am appreciated by the people I work with
wkcon3	I feel respected in my role as a volunteer
wkcon4	I feel a sense of belonging to the people I work with in the force
	Value connectedness
valcon1	I am valued by the force
valcon2	My efforts, as a volunteer, are recognised by the force
valcon3	The force appreciates my effort
	Recipient connectedness
recipcon1	I feel compassion toward people I am helping
recipcon2	I feel it is my duty to help people when I have the ability to do so
recipcon4	It makes me feel good to help people in trouble

Now that the factor-structures of burnout and connectedness have been determined, the following sections consider the psychometric properties of the independent and outcome variables. Full items can be found in the questionnaire (Appendix A).

4.5 Psychometric properties of job demands

4.5.1 Role ambiguity

Role ambiguity was assessed using an adapted version of the scale developed by Rizzo et al. (1970). Six items were taken from the scale developed by Rizzo et al. (1970), whilst a seventh item was added from the role ambiguity scale developed by House et al. (1983). The items from Rizzo et al. (1970) asked respondents to rate six statements concerning the degree to which they felt they lacked the relevant information required to understand what was expected of them in their role. Responses ranged from 1 (strongly disagree) to 7 (strongly agree). The seventh item asked respondents whether they knew how they would be evaluated for a raise or promotion.

This item was included because of the rank structure within the Special Constabulary and was also asked on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). However, as it was positively phrased the scores were reversed coded. On the basis of face-validity, the item referring to planned goals and objectives in an individual's *job* was adapted to refer to the *volunteer role*. Similarly, the additional item was modified to just refer to 'promotion'. Examples of items within the scale are *'I know exactly what is expected of me'* and *'I feel certain about how much authority I have'* (Fields, 2002: 149).

The modified seven-item role ambiguity scale had a poor level of internal consistency (α=.58). Analysis indicated that the removal of the additional item referring to promotions would substantially improve scale reliability. Consequently the scale based on Rizzo et al.'s (1970) original six items achieved a good level of internal consistency (α=.85). Similar alpha levels have been recorded in studies of role ambiguity within police and volunteer studies. Holgate and Clegg (1991) reported a Cronbach's alpha of α=.84 in their study of probation officers, whilst Cox et al. (2010) reported an alpha coefficient of α=.86 in their study of HIV/AIDS volunteers. Generally the scale has demonstrated strong reliability across a number of published studies ranging from α=.71 to α=.95 (Fields, 2002).

4.5.2 Volunteering-family conflict

The conflict between an individual's volunteer work and their family life was assessed using the work-family conflict scale developed by Netemeyer et al. (1996). The scale contains five items with responses ranging from 1 (strongly disagree) to 7 (strongly agree), where higher scores represent greater conflict between volunteering and family roles. In order to fit with the volunteer context, items that referred to *work* were adapted to refer to *volunteering* whilst references to an individual's *job* were replaced with *voluntary role*. An example of an adapted item is, *'the demands of my work interfere with my home family life'*. The five-item scale achieved stronger internal consistency

(α=.93) than was originally reported (α=.88 to α=.89) by the scale authors (Netemeyer et al. 1996).

4.5.3 Work-volunteering and volunteering-work conflict

As there are no pre-existing scales examining the conflict between volunteering and paid work, the work-family and family-work conflict scales developed by Netemeyer et al. (1996) were adapted for this purpose. Specifically the work-family scale was adapted to examine work-volunteering conflict whilst similar changes were made to the family-work scale to examine volunteering-work conflict.

In developing the work-volunteering scale references to *home family life* were replaced with *volunteering/volunteer*, whilst references to tasks performed at home were replaced with *volunteer role*. Examples of items include: '*Things I want to do in my voluntary role do not get done because of the demands my job puts on me',* and '*due to work-related duties, I have to make changes to my plans for volunteering activities'*. The adapted version of the work-volunteering scale used a seven-point scale where 1 = strongly disagree and 7 = strongly agree and achieved strong internal consistency (α=.92).

Similar changes were made to the family-work conflict (Netemeyer et al. 1996) scale to develop the volunteering-work conflict scale used in this research. References to '*family/spouse/partner/home life'* were replaced with '*volunteering'* and examples items include, '*The demands of my volunteering interfere with work related activities'*, and, '*My volunteering interferes with my responsibilities at work'*. The same seven-point scale was used to collect responses and the adapted version of the volunteering-work scale achieved strong internal consistency (α=.94).

4.5.4 Relationships with regular officers

Although the relationship between regular officers and specials has been identified as a longstanding issue within the Special Constabulary there has been little academic

research to address these issues. Furthermore, no previously published scales examining similar issues within a more general volunteer context could be identified. For instance, Huynh et al. (2012c) used an unpublished measure of conflict with paid staff in their study of volunteer palliative carers. However, as identified earlier in this chapter, the limited Special Constabulary literature does provide some insight into the potential issues that may be experienced. Using this information a composite scale was using a deductive method (Hinkin, 1998).

Deductive scale development is most advantageous for use in contexts where there is no pre-existing theory (Hinkin, 1998). When developing scales using a deductive method, the existing literature is used to develop a theoretical definition of the construct that is then used to guide the development of individual survey items (Hinkin, 1998). The earlier review of the Special Constabulary literature base identified four potential issues that might impact upon the relationships between regular officers and special constables. These included the anti-special attitudes of regulars and a lack of appreciation, cooperation and understanding. These four broad concepts were operationalised into survey items.

Respondents were asked to rate four items designed to examine these broad areas of concern: '*regular officers that I work with appreciate the efforts of special constables', 'regular officers that I work with understand the reasons why special constables volunteer'*, '*there is effective cooperation between regular officers and special constables'* and, *'In general, regular officers are anti-specials'*. Responses were collected on a seven point Likert scale where 1 = strongly disagree to 7 = *strongly* agree. Responses on the three positively framed items were reverse coded so that higher scores reflected lower levels of appreciation, understanding and cooperation and therefore poorer working relations.

EFA analysis of the working relations scale using principle axis factoring and an oblique rotation method (direct oblimin) resulted in a single factor being extracted with

an eigenvalue of 2.11, accounting for 52.79% of the variance. At .791 the Kaiser-Meyer-Olkin (KMO) statistic was well above the 0.5 level recommended by Kaiser (1974), whilst the significant Bartlett test result (381.006, p<.001) indicates an underlying relationship between the variables. Overall this four-item composite measure achieved a good level of internal consistency (α=.88).

4.5.5 Reciprocity

A single item was used to examine the level of perceived reciprocity between specials and members of the public, '*As a special constable, I put a lot of energy into dealing with members of the public, but rarely get recognition from them in return'*. This modified item was originally published by Kop et al. (1999) in their study of reciprocity and burnout in the Dutch police.

4.6 Psychometric properties of job resources

4.6.1 Social support

The measure of social support used in this study was that developed by Caplan et al. (1975, cited in Fields, 2002). The original scale captured the ways in which supervisors, other people at work and individual's spouse, relatives and friends do things to make work life easier, are easy to talk with, can be relied upon when things get tough at work and are willing to listen to personal problems (Fields, 2002). In each of the four items minor adjustments were made to refer volunteering instead of work.

Four sources of social support were assessed by this research: the volunteer's immediate supervisor, other co-volunteers and regular officers the volunteer works with and the individual's partner/family/friends. Responses were collected on a five-point Likert scale where 0 = 'don't have any such person', 1 = 'not at all', 2 = 'a little', 3 = 'somewhat' and 4 = 'very much'. Respondents answering zero were recoded as missing so as not to negatively influence the scores of those who had experience of

social support from one of the four sources. Each social support scale demonstrated good internal consistency:

Supervisory support: α=.92

Co-volunteer support: α=.85

Regular officer support: α=.87

Family support: α=.88

4.6.2 Perceived organisational support

The scale used to measure perceived organisational support (Eisenberger et al. 1997) was the reduced-item version of the original scale developed by Eisenberger et al. (1986). As with the previous scales, minor adjustments were made to fit the context of the study. In this instance references to *'organisation'* were replaced with *'force'*, with example items being, *'my force cares about my well-being'* and, *'my force shows very little concern for me'* (Eisenberger et al. 1997: 815). In total eight items were included in the overall perceived organisational support scale with responses recorded on a seven point Likert scale where 1 = strongly disagree and 7 = strongly agree, and the scale demonstrated strong internal consistency (α=.90).

4.6.3 Performance feedback

The three-item measure of performance feedback from others (Morgeson and Humphrey, 2006) was used in this study. In order make the scale suitable for the current context references to *'job performance'* were changed to *'voluntary role performance'* whilst references to the *'organisation'* were changed to '*force'*. Responses were recorded on a five-point Likert scale where 1 = strongly disagree and 5 = strongly agree. The scale achieved a strong level of internal consistency (α=.89), similar to that reported by Morgeson and Humphrey (2006, α=.88).

4.6.4 Task significance

The measure of task significance used in this study was the four-item scale developed by Morgeson and Humphrey (2006). Again, adjustments were made to fit the context with references to *'my work'* changed to *'voluntary work'*; *'the job'* changed to *'this voluntary role'* and *'organisation'* to *'force'*. An example item is, *'The results of my voluntary work are likely to significantly affect the lives of other people'*. Responses were collected on a five point Likert scale where 1 = strongly disagree and 5 = strongly agree. The task significance scale achieved a strong level of internal consistency (α=.84).

4.6.5 Perceived access to training

Bartlett's (2001) three-item measure of perceived access to training was deployed in this research after permission to use the scale was granted by the scale author. As with the previous scales, references to *'organisation'* were adapted to *'force'* and *'employees'* to *'special constables'*. Following the cognitive interviews, the reference period for the item referring to planned forthcoming training was changed from 12-months to three months. Specials commented that plans regarding training were only known in the short-term and that this was not often communicated more than three months in advance. Responses were collected on a seven point Likert scale where 1 = strongly disagree and 7 = strongly agree. The adapted perceived access to training scale recorded a scale reliability of α=.81.

4.6.6 Challenging tasks

The measure developed by Preenen et al. (2011) was used to examine the extent to which Special Constabulary volunteerism provided volunteers with challenging work. The original items asked respondents to rate the extent to which their supervisor provided them with assignments that were challenging. However on the basis of the cognitive interviews, consultations with volunteer coordinators and reflecting the fact

that much of the work was either reactionary or tasked via a computer system, this introductory statement was modified to the following: "*My voluntary work provides me with tasks…",* removing the reference to the supervisor. The scale consists of six items, with examples being, *'my voluntary work provides me with tasks that are challenging'*, and, *'my voluntary work provides me with task that are high in responsibility'*. Items were rated on a 5-point Likert scale where 1 = strongly disagree and 5 = strongly agree. The scale achieved a good level of internal consistency (α=.88), being similar to the level reported by the scale authors (α=.90 and α=.92).

4.6.7 On-the-job learning

To measure on-the-job learning, an adapted version of the measurement tool developed by Preenen et al. (2011) was used. Following the cognitive interviews changes were made to the scale to reflect the immediate context. The original scale comprised of three items, one of which asked respondents to rate the degree to which their job allowed them to develop their talents and skills. Reflecting the cognitive nature of their work, which requires a strong knowledge of the law and current legislation, special constables advised that one of their most valued on-the-job learning experiences was the ability to develop their knowledge in relation to police work. On the basis of this one additional item, *'In my voluntary role I can develop my knowledge'*, was added. Items were rated on a 5-point Likert scale where 1 = strongly disagree and 5 = strongly agree. The four-item scale achieve a stronger level of internal consistency (α=.89) than that of the three item scale (α=.84), comparing favourably to the levels reported by Preenen et al. (2011; α=.85 to α=.86).

4.7 Psychometric properties of outcome measures

4.7.1 Volunteer job satisfaction

The measure of job satisfaction used in this study was an adapted version of the job satisfaction survey scale (Spector, 1997) developed by Mitchell et al. (2001) in their

study of voluntary turnover in paid workers. Mitchell et al. (2001) used a reduced version of Spector's (1997) scale over concerns about questionnaire length, which are resonant in the present study. The three-item scale, which was adapted for use in the current context included the following items: *'in general I like my voluntary role', 'in general I like volunteering at this force'*[8], and, *'overall, I am satisfied with my volunteer role'*. The job satisfaction scale demonstrated strong internal consistency (α=.85), identical to the level reported by Mitchell et al. (2001).

4.7.2 Organisational commitment

Meyer and Allen's (1997) measure of organisational commitment was used in this study to assess affective and normative commitment. Affective commitment relates to an individual's, "…emotional attachment to, identification with, and involvement in the organization" (Meyer and Allen, 1991: 67). It is argued that individuals high in affective commitment continue in the organisation because they freely choose to do so (Meyer and Allen, 1991). Normative commitment is related to feelings of obligation to remain within the organisation and develops as a result of the processes of socialisation (Meyer et al. 1993). Studies have identified strong socialisation processes within the police (van Maanen, 1975; Reiner, 2010) however, the impact of these within the Special Constabulary has yet to be appraised. Meyer and Allen (1990) suggest that the different forms of commitment reflect different components rather than different types of commitment. For instance, individuals might experience a strong obligation to remain but no desire to do so or vice versa (Meyer and Allen, 1990). Therefore measuring both components is essential to understand the differential effects of job characteristics within the Special Constabulary.

The affective and normative commitment scales were comprised of six items. In both cases references to the *'organisation'* were replaced with *'force'*, whilst the first item of

[8] The original wording of this item in the scale reported by Mitchell et al. (2001) was negatively phrased, *'In general I don't like my job'*.

the affective commitment scale was adapted to refer to the individual's happiness to spend the '*rest of their time as a special constable at their force'* as opposed to the rest of their '*career with the organisation'*. Responses were recorded on a seven-point Likert scale where 1 = strongly disagree and 7 = strongly agree. The Cronbach alpha scores for the affective and normative commitment scales were α=.77 and α=.86 respectively.

4.7.3 Determination to continue

The final outcome measure assessed by this study concerns the determination to continue as a volunteer. A single item measure, *'I am determined to continue as a volunteer as a volunteer at this force'*, was used with responses ranging from 1 = strongly disagree to 7 = strongly agree. Similar single-item measures have been operationalised in other research examining volunteer retention (Lewig et al. 2007; Huynh et al. 2012a; 2012b). Whilst this has the advantage of being a parsimonious measure of retention, reducing questionnaire length, the disadvantage of single-item measures is scale coarseness resulting in a lack of accuracy as well as the inability to access internal reliability.

Now that the factor compositions of the mediator variables and scale reliabilities of the independent and dependent variables have been established, Chapter 5 of this thesis will explore the health impairment process of the JD-R model within the Special Constabulary.

Chapter 5 Burnout in the Special Constabulary

5.1 Introduction

This chapter outlines the cross-sectional results of the analysis examining the indirect effect of job demands on outcome measures through volunteer burnout. Here, the following variables have been used:

Job Demands:

- Role ambiguity
- Volunteering-family conflict
- Work-volunteering / Volunteering-work conflict
- Poor working relationships with regular officers

Mediators and outcomes:

- Volunteer burnout
- Affective / Normative commitment
- Volunteer job satisfaction
- Determination to continue as a volunteer

First the analysis will examine the bivariate correlations to address hypotheses 1 to 4. This will help establish whether the fundamental principles relating to job characteristics and the JD-R model are present in this dataset. Once these relationships have been established the analysis will test for indirect effect sizes using the PROCESS macro (Hayes, 2013). This analysis will therefore address hypothesis 5a-d and establish whether the health impairment process of the JD-R model can be applied within Special Constabulary volunteerism.

5.2 Preliminary analysis

Prior to the analysis the dataset was checked for missing values and data normality. The software used to deliver the survey ensured that respondents completed all required responses. Therefore data cleaning was primarily used to recode non-responses to questions that respondents were not required to answer (e.g. work-volunteering conflict if the respondent had no employment). Next the standardised regression residuals of a series of regression analyses in which the effect of each

independent variable was regressed on each outcome variable were analysed. Regression residuals represent the differences between the values of an outcome predicted by a model and the values of that outcome observed in the sample and are used to evaluate the amount of error in a model (Field, 2005). Large residuals indicate poor fit, whereas good fitting models will have residuals close to zero (Field, 2005). The analysis was conducted by examining casewise diagnostics, histograms of standardised regression residuals and scatterplots charting the standardised regression residuals against the predicted standardised regression residuals. Two cases were identified as consistent outliers and removed from the analysis resulting in a reduction of the total sample size from *N*=274 to *N*=272. A brief summary and example of this analysis is presented in Appendix B.

The dataset was also inspected for multicolinearity. High multicolinearity limits the ability of regression analyses to obtain unique estimates as it raises the standard errors of the *b* coefficients, increasing the risk of Type II errors. High multicolinearity also limits the size of *R* estimates, making it more difficult to distinguish between the importance of the different predictor variables, resulting in unstable predictor equations by increasing the variances of the regression coefficients (Field, 2005). To examine the issue of multicolinearity, each of the independent and mediator variables were entered into a regression model in which one of these independent/mediator variables was then reclassified as the dependent variable in an iterative process. For each regression the variance inflation factor (VIF) and tolerance statistic (1/VIF) were calculated to determine whether any of the predictor variables had strong linear relationship with any of the other predictors. VIF values greater than 10 indicate cause for concern (Myers, 1990), whilst a tolerance statistic below .1 suggests potential bias in the regression models (Field, 2005). The highest recorded VIF value was 3.68 whilst the lowest tolerance statistics was 0.27 indicating that multicolinearity was not an issue.

Finally control variables were identified in the data. Although Pierucci and Noel (1980) suggest that personal characteristics are not associated with volunteer retention, various potential control variables were considered. Variables such as age, gender, intention to make a future application to the regulars, rank and ethnicity were entered into multiple regression analyses to understand whether each had any unique effect on outcomes. Taking this analysis into consideration the following variables were included as controls when predicting each outcome[9]:

- Volunteer job satisfaction: age, gender, whether or not the volunteer had intentions to make a future application to the regular service (yes/no).
- Normative commitment: age, gender, whether or not the volunteer had intentions to make a future application to the regular service (yes/no), rank
- Affective commitment: age, gender, whether or not the volunteer had intentions to make a future application to the regular service (yes/no), rank, ethnicity (white/non-white)
- Determination to continue as a volunteer: age, gender.

Table 5.1 reveals the means, standard deviations and bivariate correlations values for each of the job demands, job resources, mediators and outcome measures. Job demands had a small to medium effect on the two components of burnout. The effect sizes between job demands and disengagement were generally larger than between demands and exhaustion. Role ambiguity had the largest effect on disengagement (r =.431, p<.01), whilst work-volunteering conflict had the smallest (r =.216, p<.01). The largest effect size between demands and exhaustion was found when examining volunteer-family conflict (r =.354, p<.01), whilst the smallest significant effect was found between exhaustion and role ambiguity (r =.128, p<.05). Job demands were also negatively correlated with each of the connectedness components however, not all of these relationships were statistically significant. Role ambiguity, volunteering-family

[9] Age and gender were included as controls for each of the outcomes.

conflict and poor working relationships with regular officers each had a medium to large effect on the outcome measures. Role ambiguity had the largest effect on the determination to continue (r =-.292, p<.01), normative commitment (r =-.338, p<.01) and volunteer job satisfaction (r =-.556, p<.01) whilst poor working relationships with regular officers had the largest effect on affective commitment (r =-.369, p<.01). The correlations between job resources, connectedness and burnout were also in the expected direction with the exception of a small non-significant positive correlation between task significance and exhaustion (r =.056, p>.05). This includes the correlation between job challenge and burnout and connectedness, indicating that this job characteristic does not act as a challenge stressor.

The two components of burnout had medium to large effects on each of the outcome measures used in this research, with each of these correlations in the expected direction. Disengagement had significant negative correlations with all outcome variables ranging from r =-.655 (p<.01) with volunteer job satisfaction, to r =-.384 (p<.01) for the determination to continue. However, whilst the correlations between exhaustion and outcomes were negative, only its correlation with volunteer job satisfaction (r =-.233, p<.01) was significant.

With the exception of volunteering-work (V-WC) and work-volunteering (W-VC) conflict, job demands also demonstrated a consistent negative relationship with job resources. Role ambiguity exhibited moderate to strong negative correlations with all job resources. The largest correlations were found between role ambiguity and perceived organisational support (r =-.548, p<.01) and the provision of feedback (r =-.507, p<.01). Poor working relationships with regular officers also demonstrated moderate to strong correlations with job resources, most notably with lack of social support from regular officers (r =-.575, p<.01) and perceived organisational support (r =-.430, p<.01). Weak to moderate correlations were found between volunteer-family conflict (V-FC) and resources such as perceived organisational support (r =-.294, p<.01), feedback (r =-

.228, $p<.01$) and social support from the family (r =.210, $p<.01$). This preliminary analysis identifies that the relationships between the various independent variables, mediator variables and dependent outcome variables are each in the expected direction and therefore consistent with the underlying premises of the JD-R model. Despite the significance of these bivariate correlations it would be inappropriate to draw any conclusions, as significant linear correlations between two variables may be influenced by third variables. Before commencing with the hypothesis testing, further additional analysis was conducted to understand the relationship between the survey variables and the data collected from ESIBS.

Table 5.1: Correlation table – demands, resources, burnout, connectedness and outcomes

	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1 Role ambiguity	2.74	1.00	272	1																							
2 W-VC	4.15	1.64	242	.209**																							
3 V-WC	2.27	1.25	242	.170**	.250**																						
4 V-FC	3.14	1.53	272	.283**	.304**	.382**																					
5 Working relations w.regulars	2.92	1.09	272	.356**	.071	.205**	.205**																				
6 On-the-job-learning	4.43	0.60	272	-.476**	-.084	-.133*	-.173**	-.268**																			
7 Perceived access to training	4.98	1.48	272	-.437**	.002	.019	-.096	-.280**	.337**																		
8 Task significance	4.06	0.63	272	-.239**	-.022	.038	-.054	-.201**	.307**	.052																	
9 Challenging assignments	4.51	0.51	272	-.389**	-.117	-.084	-.072	-.234**	.542**	.150*	.358**																
10 Feedback	3.23	1.03	272	-.507**	-.041	-.056	-.228**	-.331**	.366**	.379**	.111	.240**															
11 Perceived organisational support	4.43	1.19	272	-.548**	-.099	-.123	-.294**	-.430**	.398**	.484**	.195**	.218**	.513**														
12 Supervisor support	3.02	0.93	264	-.378**	-.056	-.143*	-.111	-.218**	.176**	.297**	.134*	.177**	.452**	.346**													
13 Volunteer support	3.10	0.74	264	-.379**	-.169**	-.148*	-.140*	-.192**	.215**	.129*	.226**	.202**	.303**	.381**	.471**												
14 Regular officer support	2.92	0.77	251	-.420**	-.107	-.187**	-.196**	-.575**	.283**	.292**	.128*	.151*	.403**	.425**	.309**	.421**											
15 Family support	3.59	0.61	270	-.202**	-.212**	-.264**	-.210**	-.193**	.138*	.134*	.120*	.127*	.141*	.188**	.128*	.196**	.220**										
16 Other worker connectedness	5.41	1.07	272	-.558**	-.100	-.132*	-.246**	-.564**	.386**	.334**	.261**	.323**	.462**	.573**	.334**	.381**	.519**	.231**									
17 Value connectedness	4.89	1.54	272	-.533**	-.079	-.091	-.270**	-.441**	.371**	.450**	.253**	.229**	.513**	.795**	.291**	.300**	.425**	.152*	.664**								
18 Recipient connectedness	6.32	0.60	272	-.276**	-.179**	-.126	-.080	-.131*	.285**	.119	.259**	.297**	.123*	.222**	.151*	.211**	.121	.114	.342**	.223**							
19 Disengagement	1.84	0.48	272	.431**	.249**	.216**	.299**	.359**	-.515**	-.306**	-.249**	-.335**	-.336**	-.467**	-.234**	-.290**	-.393**	-.182**	-.513**	-.476**	-.381**						
20 Exhaustion	2.25	0.59	272	.128*	.142*	.341**	.354**	.116	-.123*	-.041	.056	-.005	-.120*	-.149*	-.117	-.084	-.123	-.017	-.178**	-.126*	-.127*	.317**					
21 Determination to continue	5.01	1.68	272	-.292**	-.139*	.004	-.169**	-.181**	.270**	.187**	.126*	.257**	.179**	.339**	.059	.057	.154*	.025	.282**	.358**	.194**	-.384**	-.070				
22 Affective commitment	4.60	1.09	272	-.315**	-.208**	-.142*	-.215**	-.369**	.227**	.205**	.170**	.190**	.356**	.479**	.225**	.203**	.375**	.138*	.584**	.576**	.311**	-.460**	-.102	.406**			
23 Normative commitment	4.39	1.30	272	-.338**	-.124	.008	-.187**	-.211**	.282**	.347**	.125*	.142*	.342**	.513**	.176**	.191**	.269**	.071	.414**	.544**	.275**	-.420**	-.032	.427**	.586**		
24 Volunteer job satisfaction	6.11	0.82	272	-.556**	-.182**	-.179**	-.279**	-.356**	.522**	.304**	.322**	.391**	.362**	.515**	.206**	.261**	.342**	.125*	.556**	.547**	.352**	-.655**	-.233**	.457**	.478**	.480**	1

SD - Standard Deviation; * Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).

5.2.1 ESIBS analysis

Self-reported data concerning the types of duties (duty measures) and individual activities (activity measures) that special constables became involved with during the course of their duties were obtained from ESIBS for each respondent. Duty measures relate to the broad type of duty carried out such as Safer Neighbourhood Team (SNT) activities, foot patrol, attending meetings and training as well as volunteering on incident response (IR). Activity measures concern the individual tasks carried out by special constables such as arrests, domestic incidents, stop and search, checks on the Police National Computer (PNC), road collisions and taking statements. Bivariate correlations between the study variables and these measures were examined to established whether any significant relationships could be identified.

5.2.1.1 Duty measures

Working on SNT or local policing duties had a small to medium negative effect on the determination to continue (r =-.170, p<.05) and perceived access to training (r =-.318, p<.01). Taken within the current context these findings may relate to the fact that both forces had moved across to a model in which the Special Constabulary's main function was towards SNT/local policing-based duties. These duties were generally considered to be necessary, but lacking the excitement and cutting edge of IR-based work. Evidence for this is supported by the weak but positive effect between IR-based duties and volunteer job satisfaction (r =.141, p<.05). Importantly, duties based around training had a negative impact on the experience of disengagement (r =-.159, p<.01), suggesting that regular training sessions may help volunteers to re-engage with their volunteer work by reducing distancing behaviours. Finally duties in which special constables attended meetings had a positive influence on the perception that the volunteer work provided challenging assignments (r =.143, p<.05) and the level of affective commitment (r =.144, p<.05). Whilst it is difficult to draw conclusions from this it may be that meetings provide individuals with the opportunity to become aware of

and therefore volunteer for more challenging work. The positive correlation between meetings and affective commitment suggests that meetings are an important means through which volunteers develop an emotional connection with the police force. However, it should also be noted that attendance of meetings also had a small but statistically significant effect on the experience of exhaustion (r =.176, p<.05). This was the only duty type to have a significant effect on exhaustion and suggests that it is perhaps the cognitive strain associated with volunteering, rather than the affective or physical strain, that influences volunteer energy levels.

5.2.1.2 Activity measures

A number of activity measures had small to medium effect sizes on the perceived access to training and perceived organisational support. For instance arrests in which the special was either the officer in-charge (OIC) or assisting, stop and search and statement taking all had significant negative correlation with perceived access to training and perceived organisational support. This may suggest that specials are unaware of any training deficiencies until they are faced with a task in which they lack the necessary skills or knowledge. The negative correlations with perceived organisational support may indicate that officers feel poorly supported by the force when faced with such situations. Participation in SNT/LPT activities had the strongest negative correlation with perceived access to training (r =-.435, p<.01), which may further the notion that such duties and tasks are those considered by officers to be the most mundane. Consistent with the previous analysis, participation in more training-related activities was negatively correlated with disengagement (r =-.127, p<.05). Participation in high visibility patrols was correlated with higher levels of other worker connectedness (r =.176, p<.05), normative commitment (r =.252, p<.01) and volunteer job satisfaction (r =.196, p<.05), as well as reduced exhaustion (r =-.210, p<.05). This may suggest that that for specials, conducting activities that are clearly visible to the public helps to build connections between volunteer and members of staff that both

encourages individuals to remain within the organisation as well as enhancing job satisfaction.

5.3 Relationships between job demands, job resources, burnout and connectedness

Hypotheses 1a-b and 2a-b examine the relationship between job demands/resources and the two mediator variables. As no control variables have been specified when predicting burnout or connectedness independently of the outcome variables, the results of the regression analysis testing hypotheses 1a-b and 2a-b are identical to the bivariate correlation coefficients in table 5.1. This analysis confirmed that each of the job demands had a positive correlation with the burnout components (H1a) and negative correlations with the three connectedness variables (H1b), providing support for hypotheses 1a and 1b. Similarly, job resources were positively correlated with connectedness (H2a) and negatively correlated with burnout (H2b). This evidence provides support for hypotheses 2a and 2b.

5.4 Relationships between burnout and connectedness and outcome variables

Multiple regression analysis using SPSS was conducted to examine the relationships between the two mediator variables and each of the outcome variables, controlling for the covariates identified earlier. Higher ratings of disengagement predicted significantly lower levels in each of the outcome variables controlling for covariates. Exhaustion predicted lower levels in each of the outcome variables however, only the regressions predicting affective commitment and volunteer job satisfaction were significant:

- Disengagement (b=-1.373 (p<.001)) and exhaustion (b=-.228 (p>.05)) both predicted lower levels of determination to continue as a volunteer, controlling for covariates. As both disengagement and exhaustion predict lover levels of determination hypothesis 3a is supported.

- Disengagement (*b*=-1.008 (*p*<.001)) and exhaustion (*b*=-.256 (*p*<.05)) both predicted significantly lower levels of affective commitment, controlling for covariates. Hypothesis 3b is supported.
- Disengagement (*b*=-1.136 (*p*<.001)) and exhaustion (*b*=-.129 (*p*>.05)) both predicted lower levels of normative commitment, controlling for covariates. As both disengagement and exhaustion predict lover levels of normative commitment hypothesis 3a is supported
- Disengagement (*b*=-1.074 (*p*<.001)) and exhaustion (*b*=-.342 (*p*<.001)) both predicted significantly lower levels of volunteer job satisfaction, controlling for covariates. Hypothesis 3d is supported.

The same multiple regression analysis was repeated to examine the relationships between each of the three organisational connectedness dimensions and the four outcome variables:

- Other worker (*b*=.414, *p*<.001), value (*b*=.367, *p*<.001) and recipient (*b*=.593, *p*<.001) predicted significantly higher levels of volunteer determination to continue. Hypothesis 4a is supported.
- Other worker (*b*=.571, *p*<.001), value (*b*=.393, *p*<.001) and recipient (*b*= .551, *p*<.001) predicted significantly higher levels of affective commitment. Hypothesis 4b is supported.
- Other worker (*b*=.489, *p*<.001), value (*b*=.450, *p*<.001) and recipient (*b*= .622, *p*<.001) predicted significantly higher levels of normative commitment. Hypothesis 4c is supported.
- Other worker (*b*=.393, *p*<.001), value (*b*=.264, *p*<.001) and recipient (*b*=.481, *p*<.001) predicted significantly higher levels of volunteer job satisfaction. Hypothesis 4d is supported.

5.5 Reciprocity

Although no specific hypotheses were posed concerning the lack of perceived reciprocity felt between special constables and members of the public, significant correlations were found. The lack of perceived reciprocity had a weak positive effect on disengagement (r =.164, p<.01). Reduced levels of perceived reciprocity also had a significant weak to medium negative effect on levels other worker (r =-.216, p<.001) and value (r =-.395, p<.001) connectedness but not recipient connectedness (r = -.059, p>.05). Significant negative effects between reciprocity and affective (r =-.215, p<.001) and normative (r =-.205, p<.01) commitment were also found. The relationship between satisfaction (r =-.103, p>.05), determination to continue (r =-.095, p>05) and reciprocity was also negative but not statistically significant.

To determine whether reciprocity had any impact on burnout or connectedness, hierarchical regression analysis was conducting using same method employed by Kop et al. (1999). First, work experience (tenure) and gender were entered as independent variables (step 1), followed by reciprocity (step 2). As per Kop et al. (1999), age (r =.64, p<.001) and rank (r =.56, p<.001) were excluded because of strong correlations with tenure, reducing the risk of multicolinearity. In total, five regression models were run, two predicting disengagement and exhaustion and three predicting other worker, value and recipient connectedness.

5.5.1 Reciprocity and burnout

The results indicated that a perceived lack of reciprocity between civilians and volunteers predicted significantly higher levels of disengagement but not exhaustion. Controlling for both tenure and gender, analysis of the unstandardised regression coefficient reveals that a one-unit increase in the rating of perceived reciprocity predicted a b=.043 (p<.05) increase in disengagement (table 5.2). This regression explained 6% of the variance within disengagement.

Table 5.2: Reciprocity as a predictor of burnout

N = 272

Step	Disengagement			Exhaustion		
Predictors	*b*	R^2	ΔR^2	*b*	R^2	ΔR^2
1 Gender	.019 ***			.127		
Work experience	-.039			.010		
		.051	.043		.021	.014
2 Reciprocity	.043 *			.024		
		.066	.055		.025	.013

*** $p < .001$; ** $p < .01$; * $p < .05$

5.5.2 Reciprocity and connectedness

Reciprocity also had a significant negative effect on other worker (*b*=-.133, *p*<.01) and value (*b*=-.396, *p*<.001) connectedness, controlling for tenure and gender (table 5.3). Reciprocity explained 5% of the variance within other worker connectedness and 16% within value connectedness. These results indicate that the lack of perceived reciprocity felt between members of the public and special constables is an important predictor of both burnout (disengagement) and connectedness (other worker, value).

Table 5.3: Reciprocity as a predictor of connectedness

Step	Other worker			Value			Recipient		
Predictors	*b*	R^2	ΔR^2	*b*	R^2	ΔR^2	*b*	R^2	ΔR^2
1 Gender	-.110			-.383			.140		
Work experience	-.011			-.034 *			-.006		
		.009	.002		.034	.027		.012	.004
2 Reciprocity	-.133 **			-.396 ***			-.034		
		.054	.043		.170	.160		.018	.007

*** $p < .001$; ** $p < .01$; * $p < .05$

5.6 Conclusion

This analysis confirms that with the correlations between job demands and resources are in the expected direction. Job demands positively predict burnout and negatively predict connectedness, whilst job resources [10] negatively predict burnout and a positives relationship with connectedness. This provides support for hypotheses 1a-d and 2a-d. The multiple regression analysis, also provided support for hypotheses 3a-d and 4a-d however, two of the regression models in which exhaustion predicted

[10] With the exception of the correlation between task significance and exhaustion.

outcomes were non-significant. Despite these non-significant relationships the unstandardised regression coefficients were in the expected direction. The importance that the lack of reciprocity plays on levels of burnout and organisational connectedness was also confirmed in the hierarchical regression analysis. This analysis suggested that a perceived lack of reciprocity predicted significantly higher levels of disengagement and lower levels of other worker and value connectedness.

The following section of the thesis addresses hypothesis 5a-d. This section provides a thorough analysis of the indirect effect of job demands on the determination to continue as a volunteer, affective commitment, normative commitment and volunteer job satisfaction.

5.7 Inferences about total, direct and total indirect effects

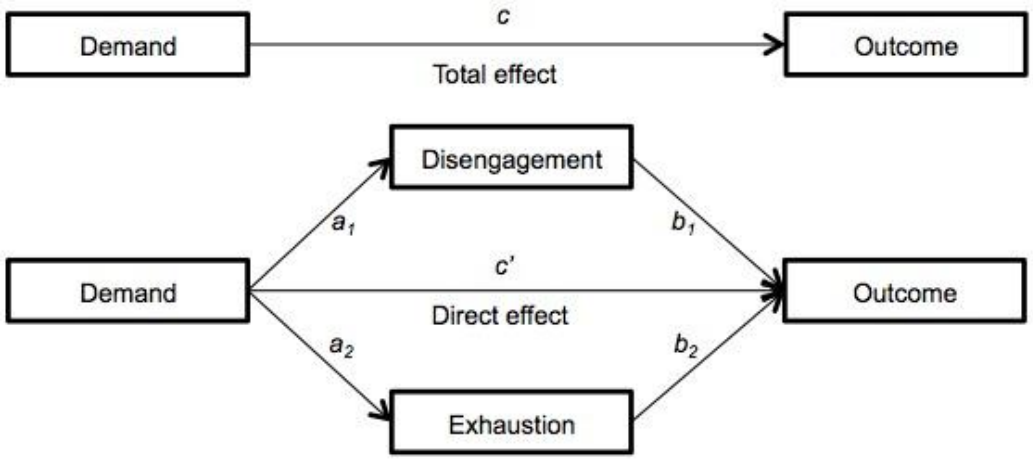
Total (*c*), direct (*c'*) and total indirect effects ($a_x b_x$) are reported when the total indirect effect of a given job demand was found to be significant in the multiple mediation models. Due to the limitations associated with using *p*-values in path analysis (see Chapter 3), bias-corrected bootstrapped confidence intervals based on 5,000 bootstrap samples were calculated to test for significance. The confidence level for significance testing was set at 99% however, as this is a conservative level of significance testing, non-significant results were re-tested at 95%. In addition to the path coefficient and significance level, lower (LLCI) and upper (ULCI) level confidence intervals are also reported for each finding. For example, the significant (99%) total indirect effect ($a_x b_x$=-0.252) of a given job demand on the determination to continue through burnout with a LLCI of -0.454 and an ULCI of –0.151 would be reported as:

Total indirect effect: $a_x b_x$=-0.252, (99%[-0.454, -0.151])

The same procedure applies where the total (*c*) and direct (*c'*) effects are reported. The methods used in these findings chapters, including the path analysis and effect size measures are full explained in the methodology chapter (Chapter 3). The results within each outcome measure are reported in order of the size of their indirect effect however,

it is important to recognise that this does not imply their relative importance. Figure 5.1 provides an example of the path model tested in this chapter.

Figure 5.1: Total, direct and indirect paths - burnout



5.8 Indirect effect of job demands on the determination to continue

Here the analysis examines the indirect effect of job demands on the determination to continue as a volunteer through burnout. The results are discussed in order of their indirect effect size (highest-lowest) however, this should not be taken as evidence of their overall importance when predicting the outcome.

Role ambiguity

Role ambiguity had the largest indirect effect on the determination to continue through burnout compared to all other job demands. Analysis of the total effect (*c*) indicates that as scores on role ambiguity increase by one unit the determination to continue decreases by *c*=-0.493 (99%CI[-0.748,-0.239]). Supporting hypothesis 5a, the multiple parallel path analysis revealed that role ambiguity also indirectly influenced determination to continue through burnout (table 5.4). Specials who reported higher levels of role ambiguity scored significantly higher on disengagement (a_1=0.204). In turn, disengagement predicted lower levels of determination to continue (b_1=-1.207). A bias-corrected bootstrap confidence interval for the total indirect effect ($a_x b_x$=-0.237, 99%CI[-0.416, -0.102]) based on 5,000 bootstrap samples did not include zero. This

indicates that the indirect effect of role ambiguity on the determination to continue is significant. Furthermore, the direct effect (c') of role ambiguity on determination became non-significant after the effects of burnout were accounted for (*c'*=-0.257, 99%CI[-0.526, 0.013]). Therefore the effect of role ambiguity on determination is not independent of its effect through volunteer burnout.

Table 5.4: Model coefficients: role ambiguity and determination

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Determination to continue (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Role	a_1	0.204	0.027	<.001	0.136	0.273	c	-0.493	0.098	<.001	-0.748	-0.239		--	--	--	--
ambiguity)	a_2	0.065	0.036	.077	-0.030	0.159	c'	-0.257	0.104	.014	-0.526	0.013	**Total**	-0.237	0.060	-0.416	-0.102
M_1		--	--	--			b_1	-1.207	0.232	<.001	-1.808	-0.606	a_1b_1	-0.247	0.063	-0.431	-0.104
M_2		--	--	--			b_2	0.154	0.169	.362	-0.284	0.592	a_2b_2	0.010	0.017	-0.022	0.083
Contrast		--	--	--				--	--	--			C_1	-0.257	0.070	-0.470	-0.100
$R^2_{4.5}$	7%																
Covariates: age and gender																	

Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.247, 99%CI[-0.416, -0.102]). Therefore whilst the effect of role ambiguity on the determination to continue is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect. Finally the commonality analysis found the amount of variance in the determination to continue explained by role ambiguity and burnout but attributable to neither alone was $R^2_{4.5}$=7%. This was higher than any of the other job resources when predicting the determination to continue.

Poor working relationships with regular officers

The next largest significant indirect effect was found when poor working relationships with regular officers was used to predict determination to continue. Overall poor working relationships with regular officers had a negative effect on determination to continue as a volunteer. The total effect (*c*) indicates that as ratings on the poor

working relationships with regular officers scale increased by one unit, volunteer determination to continue decreases by *c*=-0.241 (95%CI[-0.482, 0.000[11]]).

Table 5.5: Model coefficients: work relations with regular officers and determination

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Determination to continue (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Work	a_1	0.147	0.025	<.001	0.081	0.212	c	-0.241	0.093	.010	-0.482	0.000		--	--	--	--
rels w.regs)	a_2	0.069	0.033	.039	-0.017	0.155	c'	-0.046	0.092	.616	-0.285	0.193	**Total**	-0.195	0.051	-0.353	-0.086
M1		--	--	--			b_1	-1.412	0.224	<.001	-1.993	-0.831	a_1b_1	-0.207	0.055	-0.374	-0.094
M2		--	--	--			b_2	0.174	0.171	.307	-0.268	0.617	a_2b_2	0.012	0.018	-0.023	0.087
Contrast		--	--	--				--	--	--			c_1	-0.219	0.063	-0.416	-0.089
$R^2_{4.5}$	3%																
Covariates: age and gender																	

Further supporting hypothesis 5a, the multiple parallel path analysis revealed that poor working relationships with regular officers indirectly influenced determination to continue through burnout. Specials who reported poorer working relationships with regulars scored significantly higher for disengagement (a_1=0.147). In turn disengagement predicted lower levels of determination to continue (b_1=-1.412). As shown in table 5.5, a bias-corrected bootstrap confidence interval for the total indirect effect (a_xb_x=-0.195, 99%CI[-0.353, -0.086]) did not include zero, indicating that the indirect effect of poor working relationships with regular officers on the determination to continue through burnout was significant. Therefore the effect of poor working relationships on determination is not independent of its effect through burnout. This finding is further supported by the non-significant direct effect of poor working relationships with regular officers on the determination to continue (c'=-0.046, 99%CI[-0.285, 0.193]). Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.207, 99%CI[-0.374, -0.094]). Therefore, whilst the effect of poor working relationships with regular officers on the determination to continue is not independent of its effect through burnout it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

[11] ULCI = -0.0003

Volunteering-family conflict

Volunteering-family conflict (V-FC) had a significant indirect effect on the determination to continue compared. Analysis of the total effect (*c*) indicates that as ratings on the V-FC scale increased by one unit, determination to continue as a volunteer decreased by *c*=-0.188 (99%CI[-0.359, -0.017]). Supporting hypothesis 5a, the multiple parallel mediation analysis revealed that V-FC also indirectly influenced determination to continue through burnout (table 5.6). Specials who reported that their voluntary work created conflict in their family/home life scored significantly higher on both disengagement (a_1=0.094) and exhaustion (a_2=0.133). In turn, disengagement predicted lower levels of determination to continue (b_1=-1.388). The path from V-FC to exhaustion indicates how inter-role conflict between family and volunteer roles predicts significantly higher levels of exhaustion. This is important, as V-FC is one of the few job demands to have a significant relationship with exhaustion. A bias-corrected bootstrap confidence interval for the total indirect effect (a_xb_x=-0.100, 99%CI[-0.226, -0.005]) did not include zero, indicating that the indirect effect of V-FC on the determination to continue through burnout was significant. This is further supported by the non-significant direct effect (*c'*=-0.088, 99%CI[-0.262, 0.086]), indicating that the effect of V-FC on determination is not independent of its effect through volunteer burnout.

Table 5.6: Model coefficients: V-FC and determination

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Determination to continue (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (V-FC)	a_1	0.094	0.018	<.001	0.047	0.142	***c***	-0.188	0.066	.005	-0.359	-0.017		--	--	--	--
	a_2	0.133	0.022	<.001	0.075	0.191	***c'***	-0.088	0.067	.190	-0.262	0.086	**Total**	-0.100	0.041	-0.226	-0.005
M1		--	--	--			b_1	-1.388	0.217	<.001	-1.950	-0.825	a_1b_1	-0.131	0.038	-0.253	-0.052
M2		--	--	--			b_2	0.235	0.176	.183	-0.222	0.693	a_2b_2	0.031	0.029	-0.042	0.115
Contrast	C_1	--	--	--				--	--	--				-0.162	0.054	-0.330	-0.048
$R^2_{4,5}$	3%																
Covariates: age and gender																	

Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.131, 99% CI[-0.255, -0.052]). Therefore, whilst the effect of V-FC on the determination to continue is not independent of its effect

through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Work-volunteering conflict

This analysis also sought to uncover whether the two additional sources of conflict impacted upon the determination to remain a volunteer within the Special Constabulary. The first additional conflict item examined whether specials felt that demands from their paid work conflicted with the volunteering (W-VC). The second conflict measure examined whether volunteering produced any conflict with paid work (V-WC). When collecting the survey data, those who did not have full or part-time employment screened out of answering these questions.

Work-volunteering conflict (W-VC) had the weakest significant indirect effect on the determination to continue compared to all job demands. Analysis of the total effect (*c*) indicates that as ratings on the W-VC scale increased by one unit, determination to continue as a volunteer decreased by *c*=-0.149 (95%CI[- 0.278, -0.020]) however, this relationship was only significant at the 95% level of confidence. Supporting hypothesis 5a, the multiple parallel path analysis revealed that W-VC also indirectly influenced determination to continue through burnout at the 99% level of confidence. Specials who reported that their paid work created conflict in their volunteering scored significantly higher on disengagement (a_1=0.074). In turn, higher levels of disengagement predicted lower levels of determination to continue (b_1=-1.434).

Table 5.7: Model coefficients: W-VC and determination

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Determination to continue (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
	a_1	0.074	0.019	<.001	0.026	0.122	c	-0.149	0.066	.024	-0.320	0.021		--	--	--	--
X (W-VC)	a_2	0.046	0.024	.056	-0.016	0.109	c'	-0.056	0.063	.375	-0.219	0.107	**Total**	-0.094	0.033	-0.198	-0.019
M1		--	--	--			b_1	-1.434	0.228	<.001	-2.025	-0.844	a_1b_1	-0.106	0.034	-0.218	-0.028
M2		--	--	--			b_2	0.274	0.176	.121	-0.184	0.732	a_2b_2	0.013	0.012	-0.010	0.063
Contrast		--	--	--				--	--	--			C_1	-0.119	0.039	-0.249	-0.032
$R^2_{4,5}$	2%																
Covariates: age and gender																	

A bias-corrected bootstrap confidence interval for the total indirect effect (a_xb_x=- 0.094, 99%CI[-0.198, -0.019]) did not include zero, indicating that the indirect effect of W-VC on the determination to continue through burnout was significant. This is further supported by the non-significant direct effect (*c'*= -0.056, 99%CI[-0.219, 0.107]) and indicates that the effect of W-VC on determination is not independent of its effect through volunteer burnout. Analysis of the specific indirect effects (table 5.7) reveals that only the indirect effect through disengagement is significant (a_1b_1=-0.106, 99%CI [-0.218, -0.028]). Therefore whilst the effect of W-VC on the determination to continue is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect. This finding indicates that conflict experienced between a volunteer's paid work has a spill-over effect into their volunteering, which ultimately impacts upon retention.

Volunteering-work conflict

This study also sought to understand whether volunteering-based demands produced conflict with a volunteers paid work. The findings reveal that the total indirect effect of V-WC on determination was not significant at either the 99% or 95% level of confidence. Although V-WC predicted significantly higher levels of disengagement (a_1=0.081) and exhaustion (a_2=0.16), the total indirect effect of V-WC was non-significant (a_xb_x=-0.091, 95%CI[-0.197, 0.006]).

5.8.1 Conclusion: determination to continue

Overall these findings provide general support hypothesis 5a, indicating that the effect of job demands on the determination to continue as a volunteer are not independent of their effects through burnout. However, whilst the total indirect effect sizes were significant for the models in which role ambiguity, poor working relationships with regular officers, V-FC and W-FC were used to predict determination, only the path through disengagement was significant. This suggests the use of passive coping

strategies, such as distancing to deal with job demands, which may include the development of impersonal or callous attitude towards recipients and a disinterest and mechanical execution of the work (Demerouti et al. 2003).

5.9 Indirect effect of job demands on affective commitment

The following section addresses hypothesis 5b, examining the indirect effect of job demands on volunteer's level of emotional attachment with the Special Constabulary. The results are discussed by order of their total indirect effect on affective commitment (highest-lowest) however, this should not be taken as an indication of their overall importance in predicting the outcome.

Role ambiguity

Role ambiguity had the largest negative indirect effect on affective commitment compared to all job demands. Analysis of the total effect (*c*) indicates that as ratings on the role ambiguity scale increased by one unit affective commitment decreased by *c*=-0.314 (99%CI[-.0478, -0.150). Supporting hypothesis 5b, the multiple parallel path analysis revealed that role ambiguity also indirectly influenced affective commitment through burnout. Specials who reported higher levels of role ambiguity scored significantly higher on disengagement (a_1=0.194). In turn, disengagement predicted lower levels of determination to continue (b_1=-0.890).

Total indirect effect ($a_x b_x$=-0.172, 99%CI[-0.268, -0.096]) was significant (table 5.8), indicating that the effect of role ambiguity on affective commitment is not independent of its effect through volunteer burnout. This is further supported by the non-significant direct effect (*c'*=-0.142, 99%CI[-0.311, 0.026]). Analysis of the specific indirect effect reveals that only the effect through disengagement is significant ($a_1 b_1$=-0.173, 99% CI[-0.277, -0.096]). Therefore, whilst the effect of role ambiguity on affective commitment is not independent of its effect through burnout it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Table 5.8: Model coefficients: role ambiguity and affective commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Affective Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Role	a_1	0.194	0.027	<.001	0.125	0.264	c	-0.314	0.063	<.001	-0.478	-0.150	--	--	--	--
ambiguity)	a_2	0.071	0.037	.056	-0.025	0.166	c'	-0.142	0.065	.029	-0.311	0.026	**Total**	-0.172	0.033	-0.268	-0.096
M1		--	--	--			b_1	-0.890	0.145	<.001	-1.267	-0.513	a_1b_1	-0.173	0.034	-0.277	-0.096
M2		--	--	--			b_2	0.015	0.106	.886	-0.260	0.290	a_2b_2	0.001	0.010	-0.027	0.038
Contrast		--	--	--				--	--	--			C_1	-0.174	0.038	-0.297	-0.088
$R^2_{4,5}$	13%																
Covariates: age, gender, future application to the regulars, rank, ethnicity (white/non-white)																	

Poor working relationships with regular officers

Poor working relationships with regular officers had a negative effect on affective commitment. Analysis of the total effect (*c*) indicates that as ratings on the working relationships with regular officers scale increased by one unit, affective commitment decreased by *c*=-0.338 (99%CI[-0.484, -0.192)]. Supporting hypothesis 5b, the multiple parallel path analysis revealed that poor working relationships with regular officers also indirectly influenced affective commitment through burnout. Specials who reported poorer working relations with regular officers scored significantly higher on disengagement (a_1=0.138). In turn, disengagement predicted lower levels of determination to continue (b_1=-0.850).

Table 5.9: Model coefficients: working relations with regular officers and affective commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Affective Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Work	a_1	0.138	0.025	<.001	0.072	0.203	c	-0.338	0.056	<.001	-0.484	-0.192	--	--	--	--
rels w. regs)	a_2	0.061	0.033	.066	-0.025	0.148	c'	-0.223	0.055	<.001	-0.366	-0.079	**Total**	-0.116	0.028	-0.196	-0.056
M1		--	--	--			b_1	-0.850	0.137	<.001	-1.205	-0.495	a_1b_1	-0.117	0.028	-0.198	-0.057
M2		--	--	--			b_2	0.023	0.104	.824	-0.246	0.292	a_2b_2	0.001	0.009	-0.024	0.037
Contrast		--	--	--				--	--	--			c_1	-0.118	0.030	-0.210	-0.057
$R^2_{4,5}$	13%																
Covariates: age, gender, future application to the regulars, rank, ethnicity (white/non-white)																	

The total indirect effect size (a_xb_x=-0.116, 99%CI[-0.196, -0.056]) was significant, however, the direct effect (*c'*) remained significant. Therefore, whilst the effect of poor working relationships with regular officers on affective commitment is not independent of its effect through burnout, unaccounted additional processes may also to be evident.

Despite poor working relationships with regular officers still having a significant direct effect (*c'*) on affective commitment (table 5.9), the significant total indirect effect indicates that the relationship between these two variables is not independent of the indirect path through burnout. Analysis of the specific indirect effects reveals that only the effect through disengagement is significant (a_1b_1=-0.117, 99%CI[-0.198, -0.057]). Therefore whilst the effect of poor working relationships with regular officers on affective commitment is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for this relationship.

Volunteering-family conflict

The evidence presented here indicates that inter-role conflict between volunteering and family domains had a negative effect on affective commitment. Analysis of the total effect (*c*) indicates that as ratings on the V-FC scale increased by one unit affective commitment decreased by *c*=-0.168 (99%CI[-0.276, -0.061). Supporting hypothesis 5b, the multiple parallel path analysis revealed that V-FC also indirectly influenced affective commitment through burnout. Specials who reported greater levels of conflict between their volunteering and home/family life scored significantly higher on both disengagement (a_1=0.093) and exhaustion (a_2=0.126). In turn, disengagement predicted lower levels of determination to continue (b_1=-0.952).

Table 5.10: Model coefficients: V-FC and affective commitment

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Affective Commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (V-FC)	a_1	0.093	0.018	<.001	0.046	0.139	***c***	-0.168	0.041	<.001	-0.276	-0.061		--	--	--	--
	a_2	0.126	0.022	<.001	0.068	0.185	***c'***	-0.091	0.041	.029	-0.198	0.016	**Total**	-0.078	0.026	-0.150	-0.013
M1		--	--	--			b_1	-0.952	0.137	<.001	-1.306	-0.598	a_1b_1	-0.088	0.022	-0.154	-0.038
M2		--	--	--			b_2	0.082	0.109	.453	-0.202	0.366	a_2b_2	0.010	0.017	-0.031	0.058
Contrast		--	--	--				--	--	--			C_1	-0.099	0.030	-0.187	-0.033
$R^2_{4.5}$	11%																
Covariates: age, gender, future application to the regulars, rank, ethnicity (white/non-white)																	

The total indirect effect (a_xb_x=-0.078, 99%CI[-0.150, -0.013]) was significant, whilst the direct effect was non-significant (*c'*), indicating that the effect of V-FC on affective commitment is not independent of its effect through volunteer burnout (table 5.10).

Analysis of the specific indirect effects reveals that only the effect through disengagement is significant (a_1b_1=-0.088, 99%CI[-0.154, -0.038]). Therefore whilst the effect of V-FC on affective commitment is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Work-volunteering conflict

Evidence of inter-role conflict between paid work and volunteering was also found in this study however, W-VC had the smallest negative effect on affective commitment of all significant job demands. Analysis of the total effect (*c*) indicates that as ratings on the W-VC scale increased by one unit, affective commitment decreases by *c*=-0.126 (99%CI[-0.233, -0.018]). Supporting hypothesis 5b, the multiple parallel path analysis revealed that W-VC also indirectly influenced affective commitment through burnout. Specials who reported greater levels of W-FC scored significantly higher on both disengagement (a_1=0.072) and exhaustion (a_2=0.050). In turn, disengagement predicted lower levels of determination to continue (b_1= -0.933).

Table 5.11: Model coefficients: W-VC and affective commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Affective Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X (W-VC)	a_1	0.072	0.018	<.001	0.024	0.120	c	-0.126	0.041	.003	-0.233	-0.018	--	--	--	--
	a_2	0.050	0.024	.036	-0.012	0.112	c'	-0.061	0.039	.121	-0.163	0.041	**Total**	-0.065	0.019	-0.117	-0.016
M1		--	--	--			b_1	-0.933	0.144	<.001	-1.307	-0.559	a_1b_1	-0.067	0.019	-0.124	-0.022
M2		--	--	--			b_2	0.053	0.111	.631	-0.235	0.342	a_2b_2	0.003	0.008	-0.015	0.031
Contrast		--	--	--				--	--	--			C_1	-0.070	0.022	-0.135	-0.019
$R^2_{4,5}$	11%																
Covariates: age, gender, future application to the regulars, rank, ethnicity (white/non-white)																	

The total indirect effect (a_xb_x=-0.065, 99%CI[-0.117, -0.016]) was significant, whilst the direct effect was non-significant (*c'*), indicating that the effect of W-VC on affective commitment is not independent of its effect through volunteer burnout (table 5.11). Analysis of the specific indirect effects reveals that only the effect through disengagement is significant (a_1b_1=-0.067, 99%CI[- 0.124, -0.022]). Therefore whilst the effect of V-FC on affective commitment is not independent of its effect through

burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Volunteering-work conflict

Analysis was also conducted to examine whether conflict between volunteering and paid work influenced levels of affective commitment. As with the previous analysis of V-WC, the total indirect effect was not statistically significant at either the 95% or 99% level of confidence. As the total effect of V-WC was also not significant it can be concluded that any effect of V-WC on affective commitment is independent of burnout.

5.9.1 Conclusion: affective commitment

Overall there was strong support for hypothesis 5b. The path analysis indicates that the effect of role ambiguity, poor working relationships with regular officers, V-FC and W-VC on affective commitment was not independent of its indirect effect through burnout however, once again it was the disengagement component and not exhaustion that was responsible for this relationship.

5.10 Indirect effect of job demands on normative commitment

This section addresses hypothesis 5c, examining the impact of job demands on levels of normative commitment. Once again the results are reported in order of effect size however, this should not be taken as an indication of their overall importance in predicting the outcome.

Role Ambiguity

Role ambiguity had the largest negative effect on normative commitment compared to all job demands. The total effect (*c*) indicates that as rating on the role ambiguity scale increased by one unit normative commitment decreased by *c*=-0.439 (99%CI[-0.637, -0.240]). Supporting hypothesis 5d, role ambiguity also indirectly influenced normative commitment through burnout. Specials who reported higher levels of role ambiguity scored significantly higher on disengagement (a_1=0.197). In turn, disengagement

predicted lower levels of determination to continue (b_1=-1.113). The total indirect effect size was significant (a_xb_x=-0.202, 99%CI[-0.338, -0.100]) however, role ambiguity still had a significant direct effect (*c'*) on normative commitment (table 5.12). Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.219, 99%CI[-0.357, -0.113]). Therefore, whilst the effect of role ambiguity on normative commitment is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Table 5.12: Model coefficients: role ambiguity and normative commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Normative Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Role	a_1	0.197	0.027	<.001	0.127	0.266	c	-0.439	0.077	<.001	-0.637	-0.240		--	--	--	--
ambiguity)	a_2	0.071	0.037	.054	-0.024	0.166	c'	-0.236	0.079	.003	-0.440	-0.033	**Total**	-0.202	0.046	-0.338	-0.100
M1		--	--	--			b_1	-1.113	0.175	<.001	-1.567	-0.658	a_1b_1	-0.219	0.047	-0.357	-0.113
M2		--	--	--			b_2	0.231	0.128	.073	-0.102	0.564	a_2b_2	0.016	0.015	-0.010	0.087
Contrast		--	--	--				--	--	--			C_1	-0.235	0.052	-0.393	-0.119
$R^2_{4.5}$																	
Covariates: age, gender, future application to the regulars, rank.																	

Poor working relations with regular officers

Poor working relationships with regular officers had a negative effect on normative commitment. Analysis of the total effect (*c*) indicates that as ratings on the working relationships variable increased by one unit, normative commitment decreased by *c*=-0.236 (99%CI[-0.423, -0.048). Supporting hypothesis 5c, poor working relationships with regular officers also indirectly influenced normative commitment through burnout. Specials who reported poorer working relations with regular officers scored significantly higher disengagement (a_1=0.137). In turn, disengagement predicted lower levels of normative commitment (b_1=-1.267).

The total indirect effect (a_xb_x=-0.159, 99%CI[-0.275, -0.079]) of poor working relationships with regular officers was significant, whilst the direct effect (*c'*) was non-significant (table 5.13), indicating that the effect of this variable on normative commitment is not independent of its effect through volunteer burnout. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant

(a_1b_1=-0.173, 99%CI[-0.295, -0.093]). Therefore whilst the effect of poor working relationships with regular officers on normative commitment is not independent of its effect through burnout it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Table 5.13: Model coefficients: working relations with regular officers and normative commitment

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Normative Commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Work	a_1	0.137	0.025	<.001	.071	.203	c	-0.236	0.072	.001	-0.423	-0.048		--	--	--	--
rels w. regs)	a_2	0.061	0.033	.066	-.025	.147	c'	-0.077	0.069	.269	-0.257	0.103	**Total**	-0.159	0.036	-0.275	-0.079
M1		--	--	--			b_1	-1.267	0.171	<.001	-1.710	-0.825	a_1b_1	-0.173	0.037	-0.295	-0.093
M2		--	--	--			b_2	0.242	0.130	.064	-0.096	0.580	a_2b_2	0.015	0.014	-0.010	0.076
Contrast		--	--	--				--	--	--			c_1	-0.188	0.043	-0.327	-0.094
$R^2_{4.5}$	7%																
Covariates: age, gender, future application to the regulars, rank.																	

Work-volunteering conflict

There was evidence that inter-role conflict between work and volunteering had an indirect negative effect on normative commitment however, the total effect of W-VC was only significant at the 95% level of confidence (c=0.094, 95%CI[-0.144, -0.010]). However, W-VC the indirect effect of W-VC on normative commitment was significant at the 99% level of confidence.

Specials who experienced W-VC scored higher on both disengagement (a_1=0.073) and in turn, disengagement (b_1=-1.372) predicted lower levels of normative commitment. The total indirect effect (a_xb_x=-0.086, 99%CI[-0.163, -0.019]) was significant, whilst the direct effect was non-significant (c'), indicating that the effect of W-VC on normative commitment is not independent of its effect through volunteer burnout. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.100, 99%CI[-0.184, -0.037]).

Table 5.14: Model coefficients: W-VC and normative commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Normative Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X (W-VC)	a_1	0.073	0.018	<.001	0.025	0.121	c	-0.094	0.053	.076	-0.231	0.043	--	--	--	--
	a_2	0.051	0.024	.035	-0.011	0.113	c'	-0.009	0.049	.862	-0.136	0.119	**Total**	-0.086	0.028	-0.163	-0.019
M1		--	--	--			b_1	-1.372	0.179	<.001	-1.837	-0.907	a_1b_1	-0.100	0.028	-0.184	-0.037
M2		--	--	--			b_2	0.288	0.138	.039	-0.072	0.648	a_2b_2	0.015	0.012	-0.005	0.064
Contrast	C_1	--	--	--				--	--	--			C_1	-0.115	0.033	-0.216	-0.041
$R^2_{4,5}$	4%																
Covariates: age, gender, future application to the regulars, rank.																	

Volunteering-family conflict

Inter-role conflict between the volunteering and family domains also had a negative influence on normative commitment. Analysis of the total effect (*c*) indicates that as ratings on the V-FC scale increased by one unit, normative commitment decreased by *c*=-0.181 (99%CI[-0.314, -0.048]). Supporting hypothesis 5c, V-FC also indirectly influenced normative commitment through burnout (table 5.15). Specials who reported greater levels of conflict between their volunteering and family life scored higher on both disengagement (a_1=0.094) and exhaustion (a_2=0.127). In turn, disengagement predicted lower levels of normative commitment (b_1=-1.250). However, the total indirect effect was only significant at the 95% level of confidence (a_xb_x=-0.078, 95%CI[-0.140, -0.012]), whilst the direct effect (*c'*) was non-significant, indicating that the effect of V-FC on normative commitment is not independent of its effect through volunteer burnout.

Analysis of the specific indirect effect at the 99% level of confidence reveals that only the effect through disengagement is significant (a_1b_1=-0.117, 99%CI[-0.203, -0.050]), whilst additional analysis at the 95% level found a statistically significant positive indirect through exhaustion (a_2b_2=0.039, 95%CI[-0.002, -0.090]). This unexpected and counterintuitive finding may be a result of the strong socialisation processes within the Special Constabulary that influence normative commitment. Therefore, despite inter-role conflict leading to exhaustion, volunteers feel even more committed to the Special Constabulary perhaps because of the strong bonds they develop with others. Consequently, whilst the effect of V-FC on normative commitment is not independent of

its effect through burnout, disengagement and exhaustion appear to have opposite effects.

Table 5.15: Model coefficients: V-FC and normative commitment

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Normative Commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
	a_1	0.094	0.018	<.001	0.047	0.140	c	-0.181	0.051	.001	-0.314	-0.048	--	--	--	--
X (V-FC)	a_2	0.127	0.022	<.001	0.068	0.185	c'	-0.103	0.050	.042	-0.234	0.028	**Total**	-0.078	0.033	-0.168	0.009
M1		--	--	--			b_1	-1.250	0.166	<.001	-1.680	-0.820	a_1b_1	-0.117	0.029	-0.203	-0.050
M2		--	--	--			b_2	0.311	0.134	.021	-0.036	0.658	a_2b_2	0.039	0.022	-0.012	0.105
Contrast		--	--	--				--	--	--			C_1	-0.156	0.039	-0.277	-0.069
$R^2_{4.5}$	7%																

Covariates: age, gender, future application to the regulars, rank.

Volunteering-work conflict

Analysis was also conducted to examine effect of V-WC on normative commitment. As with the previous analysis the total indirect effect was not statistically significant at either the 95% or 99% level of confidence. As a result it can be concluded that this form of conflict does not indirectly influence normative commitment through volunteer burnout.

5.10.1 Conclusion: Normative commitment

This analysis indicates that the effect of role ambiguity, poor working relationships with regular officers, V-FC and W-VC on normative commitment is not independent of their effects through burnout, providing strong support for hypothesis 5c. Once again in each of the path models the specific indirect effect through disengagement was responsible for the indirect effect.

5.11 Indirect effect of job demands on volunteer job satisfaction

The final section of this chapter addresses hypothesis 5d by examining the indirect effect of job demands on volunteer job satisfaction. Once again the results are presented in order of effect size however, this should not be taken as an indication of their overall importance in predicting the outcome.

Role Ambiguity

Role ambiguity had the largest negative effect on volunteer job satisfaction compared to all job demands. The total effect (*c*) indicates that as ratings on the role ambiguity increased by one unit satisfaction decreased by *c*=-0.417 (99%CI[-0.526, -0.308]). Supporting hypothesis 5d, role ambiguity also indirectly influenced satisfaction through burnout (table 5.16). Specials who reported higher levels of role ambiguity scored significantly higher on disengagement (a_1=0.188). In turn, disengagement predicted lower levels of determination to continue (b_1=-0.824).

Table 5.16: Model coefficients: role ambiguity and satisfaction

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Job Satisfaction (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Role	a_1	0.188	0.027	<.001	0.119	0.258	c	-0.417	0.042	<.001	-0.526	-0.308	--	--	--	--
ambiguity)	a_2	0.072	0.037	.054	-0.024	0.167	c'	-0.257	0.039	<.001	-0.357	-0.157	**Total**	-0.160	0.028	-0.242	-0.096
M1		--	--	--			b_1	-0.824	0.087	<.001	-1.050	-0.599	a_1b_1	-0.155	0.027	-0.238	-0.093
M2		--	--	--			b_2	-0.065	0.063	.301	-0.229	0.098	a_2b_2	-0.005	0.006	-0.031	0.006
Contrast		--	--	--				--	--	--			C_1	-0.151	0.028	-0.235	-0.088
$R^2_{4.5}$	27%																
Covariates: age, gender, whether or not police staff, future application to the regulars, rank.																	

The total indirect effect (a_xb_x=-0.160, 99% CI[-0.242, -0.096]) was significant, however the direct effect (*c'*) also remained significant. This indicates that whilst the indirect effect of role ambiguity on satisfaction is not independent of its effect through volunteer burnout, other unaccounted for processes may be evident. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.155, 99%CI[-0.238, -0.093]). Therefore whilst the effect of role ambiguity on satisfaction is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Poor working relationships with regular officers

Poor working relationships with regular officers had a negative effect on satisfaction. The total effect (*c*) indicates that as scores on poor working relationships with regular officers increased by one unit volunteer job satisfaction decreased by *c*=-0.219 (99%CI[-0.330, -0.109). Supporting hypothesis 5d, poor working relationships with

regular officers also indirectly influenced satisfaction through burnout (table 5.17). Specials who reported poorer working relations with regular officers regular officers scored higher on disengagement (a_1=0.130). In turn, disengagement (b_1=-0.987) predicted lower levels of volunteer job satisfaction.

Table 5.17: Model coefficients: working relations with regular officers and satisfaction

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Job Satisfaction (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X (Work	a_1	0.130	0.025	<.001	0.065	0.195	c	-0.219	0.043	<.001	-0.330	-0.109	--	--	--	--
rels w. regs)	a_2	0.062	0.033	.066	-0.025	0.148	c'	-0.088	0.036	.015	-0.181	0.005	**Total**	-0.131	0.027	-0.205	-0.063
M1		--	--	--			b_1	-0.987	0.090	<.001	-1.219	-0.754	a_1b_1	-0.128	0.027	-0.205	-0.063
M2		--	--	--			b_2	-0.054	0.067	.423	-0.229	0.121	a_2b_2	-0.003	0.006	-0.026	0.008
Contrast		--	--	--				--	--	--			c_1	-0.125	0.027	-0.203	-0.060
$R^2_{4.5}$	17%																
Covariates: age, gender, whether or not police staff, future application to the regulars, rank.																	

The total indirect effect (a_xb_x=-0.131, 99%CI[-0.205, -0.063]) was significant, whilst the direct effect was non-significant (***c'***), indicating that the indirect effect of poor working relationships with regular officers on satisfaction is not independent of its effect through burnout. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.128, 99%CI[-0.205, -0.063]). Therefore whilst the effect of poor working relationships with regular officers on volunteer job satisfaction is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Volunteering-family conflict

Inter-role conflict between volunteering and family domains had a negative effect on volunteer job satisfaction. The total effect (*c*) indicates that as scores on the V-FC scale increased by one unit, satisfaction decreased by *c*=-0.139 (99%CI[-0.218, -0.059]). Supporting hypothesis 5d, V-FC also indirectly influenced satisfaction through burnout. Specials who reported greater levels of conflict between their volunteering and family life scored higher on both disengagement (a_1=0.087) and exhaustion (a_2=0.129). In turn, disengagement predicted lower levels of satisfaction (b_1=-1.019).

Table 5.18: Model coefficients: V-FC and satisfaction

		Consequent													
		Disengagement (M_1), Exhaustion (M_2)					Job Satisfaction (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (V-FC)	a_1	0.087	0.018	.000	0.040	0.134	c	-0.139	0.031	.000	-0.218	-0.059		--	--	--	--
	a_2	0.129	0.023	.000	0.070	0.188	c'	-0.047	0.027	.079	-0.116	0.022	**Total**	-0.092	0.023	-0.152	-0.035
M1		--	--	--			b_1	-1.019	0.088	.000	-1.248	-0.791	a_1b_1	-0.089	0.021	-0.149	-0.039
M2		--	--	--			b_2	-0.023	0.070	.742	-0.206	0.159	a_2b_2	-0.003	0.010	-0.030	0.022
Contrast		--	--	--				--	--	--			C_1	-0.086	0.023	-0.159	-0.032
$R^2_{4,5}$	17%																
Covariates: age, gender, whether or not police staff, future application to the regulars, rank.																	

Table 5.18 reveals that the total indirect effect (a_xb_x=-0.092, 99%CI[-0.152, -0.035]) was significant, whilst the direct effect was non-significant (*c'*), indicating that the effect of V-FC on satisfaction is not independent of its effect through volunteer burnout. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.089, 99%CI[-0.149, -0.035]). Therefore whilst the effect of V-FC on volunteer job satisfaction is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Volunteering-work conflict

Job satisfaction was the only outcome in which V-WC was found to have a significant total indirect effect. The total effect (*c*) indicates that as scores on V-WC increase by one unit, satisfaction decreases by *c*=-0.107 (99%CI[-0.221, -0.002]). Supporting hypothesis 5d, V-WC also indirectly influenced satisfaction through burnout. Specials who reported greater levels of conflict between volunteering and their paid work scored higher on both disengagement (a_1=0.081) and exhaustion (a_2=0.155). In turn disengagement predicted lower levels of satisfaction (b_1=-1.026).

Table 5.19 reveals that the total indirect effect (a_xb_x=-0.088, 99%CI[-0.178, -0.001]) was significant, whilst the direct effect was non-significant (*c'*), indicating that the effect of V-WC on satisfaction is not independent of its effect through volunteer burnout. Analysis of the specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.083, 99%CI[-0.167, -0.005]). Therefore, whilst

the effect of V-WC on volunteer job satisfaction is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

Table 5.19: Model coefficients: V-WC and satisfaction

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Job Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (V-WC)	a_1	0.081	0.024	.001	0.019	0.144	c	-0.107	0.040	.009	-0.211	-0.002		--	--	--	--
	a_2	0.155	0.030	<.001	0.078	0.233	c'	-0.019	0.034	.578	-0.107	0.069	**Total**	-0.088	0.033	-0.178	-0.001
M1		--	--	--			b_1	-1.026	0.093	<.001	-1.266	-0.785	a_1b_1	-0.083	0.031	-0.167	-0.005
M2		--	--	--			b_2	-0.028	0.074	.701	-0.220	0.163	a_2b_2	-0.004	0.013	-0.043	0.027
Contrast		--	--	--				--	--	--			C_1	-0.079	0.033	-0.175	0.003
$R^2_{4.5}$	14%																
Covariates: age, gender, whether or not police staff, future application to the regulars, rank.																	

Work-volunteering conflict

Work-volunteering conflict had a significant influence on volunteer job satisfaction. The total effect (*c*) indicates that as rating on W-VC increase by one unit satisfaction decreases by *c*=-0.067 (95%CI[-0.129, -0.006]) however, this relationship was only significant at the 95% level of confidence. Supporting hypothesis 5d, W-VC also indirectly influenced satisfaction through burnout at the 99% level of confidence. Specials who reported greater levels of conflict between their volunteering and paid work scored higher on disengagement (a_1=0.065). In turn, disengagement predicted lower levels of satisfaction (b_1=-1.033).

Table 5.20: Model coefficients: V-WC and satisfaction

		Consequent														
		Disengagement (M_1), Exhaustion (M_2)					Job Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
	a_1	0.065	0.018	.001	0.018	0.113	c	-0.067	0.031	.032	-0.148	0.014		--	--	--	--
X (W-VC)	a_2	0.051	0.024	.036	-0.012	0.114	c'	0.002	0.025	.932	-0.064	0.068	**Total**	-0.070	0.021	-0.129	-0.018
M1		--	--	--			b_1	-1.033	0.094	<.001	-1.277	-0.790	a_1b_1	-0.068	0.021	-0.126	-0.018
M2		--	--	--			b_2	-0.040	0.071	.576	-0.225	0.145	a_2b_2	-0.002	0.004	-0.021	0.007
Contrast		--	--	--				--	--	--			C_1	-0.065	0.021	-0.130	-0.017
$R^2_{4.5}$	13%																
Covariates: age, gender, whether or not police staff, future application to the regulars, rank.																	

Table 5.20 reveals that the total indirect effect (a_xb_x=-0.070, 99%CI[-0.129, -0.0218]) was significant, whilst the direct effect was non-significant (*c'*), indicating that the effect of W-VC on satisfaction is not independent of its effect through burnout. Analysis of the

specific indirect effect reveals that only the effect through disengagement is significant (a_1b_1=-0.068, 99%CI[-0.126, -0.018]). Therefore whilst the effect of W-VC on volunteer job satisfaction is not independent of its effect through burnout, it is the specific indirect effect through disengagement that is responsible for the total indirect effect.

5.11.1 Conclusion: volunteer job satisfaction

The findings' relating to the indirect effect of job demands on volunteer job satisfaction were broadly consistent with the pattern of results found in each of the other outcome variables, therefore providing strong support for hypothesis 5d. Once again the effects of role ambiguity, poor working relationships with regular officers, V-FC and W-VC on satisfaction was not independent of their effects through burnout. However, in this instance the indirect effect of V-WC was also significant, suggesting that overall levels of volunteer job satisfaction are impacted when volunteer work begins to conflict with any paid work.

5.12 Relative weight analysis

Whilst the findings so far have been reported in order of the independent variable's total indirect effect on each outcome this should not be taken as an indication of that variables relative importance. One of the challenges associated with interpreting these indirect effect sizes across the study is the use of unstandardised regression coefficients in PROCESS. Therefore, relative weight analysis (RWA) was used to determine the relative weight of the independent variables in terms of their proportionate contribution to the R^2. RWA considers the direct effect of each of the predictor variables, as well as its joint effect with other variables, and then partitions the predictable variance within the criterion variable between them (Johnson, 2004). The subsequently derived weights range from 0 to 1.0 (Johnson, 2004). In each of the analyses the same covariates used in the path analysis were also included within the RWA to maintain consistency.

Table 5.21 displays a selected output from the RWA analysis including the raw relative weight (RRW) and the weight as a per cent of the total variance (R^2). Overall, it can be seen that the job demands examined within this study explained the most amount of variance when volunteer job satisfaction was the criterion variable (46% to 54%) whilst these same variables explained the least amount of variance within the determination to continue as a volunteer (17% to 19%). The amount of variance explained within the two commitment variables was broadly similar however, there was evidence of a differential relationship between each of the job demands.

Table 5.21: RWA analysis

	Job demands				
	Relations with regulars	Role ambiguity	V-FC	V-WC	W-VC
Determination to continue					
R^2	17	19	18	17	17
RRW	0.02	0.05	0.02	0.00	0.01
RRW as % of R^2	10	28	10	2	6
Affective commitment					
R^2	32	28	28	28	28
RRW	0.09	0.05	0.03	0.01	0.02
RRW as % of R^2	29	19	11	5	9
Normative commitment					
R^2	25	27	26	25	25
RRW	0.02	0.07	0.02	0.00	0.01
RRW as % of R^2	9	25	9	1	3
Volunteer job satisfaction					
R^2	48	54	47	47	46
RRW	0.07	0.19	0.04	0.01	0.01
RRW as % of R^2	14	34	8	3	3

A more detailed inspection of the relative weight analysis outputs provides strong evidence for the importance of role ambiguity in predicting criterion variance. Role ambiguity predicted a greater proportion of R^2 in determination to continue (28%), normative commitment (25%) and volunteer job satisfaction (34%) whilst poor working relations with regular officers explained the largest proportion of R^2 within affective commitment (29%).

5.13 Conclusion

The first section of this chapter determined the direction of the relationships between job demands, job resources, burnout, connectedness and the various outcome measures. This analysis established that job demands had a significant positive correlation with burnout (H1a) and a significant negative correlation with connectedness (H1b). Job resources had significant positive correlations with connectedness (H2a) and significant negative correlations with burnout (H2b). Next it was confirmed that burnout predicted significantly lower levels of determination to continue as a volunteer (H3a), affective commitment (H3b), normative commitment (H3c) and volunteer job satisfaction (H3d) whilst connectedness predicted significantly higher of these outcome measures (4a-d).

The second section of this chapter provided a detailed examination the health impairment process of the JD-R model within the Special Constabulary. Strong support for the indirect effect of role ambiguity, poor working relationships with regular officers, volunteering family conflict and work-volunteering conflict was found. These results therefore indicate the potential negative effects of Special Constabulary volunteering on the individual, demonstrating the indirect effect of job demands on the determination to continue (H5a), affective commitment (H5b), normative commitment (H5c) and volunteer job satisfaction (H5d). The RWA analysis sought to understand the relative importance of each of the independent variables in predicting outcome variables. From this analysis it was found that role ambiguity predicted the greatest amount of criterion variance within the determination to continue, normative commitment and volunteer job satisfaction, whilst poor working relations with regular officers predicted the greatest amount of criterion variance within affective commitment. These findings suggest that a lack of information concerning role expectation not only has the strongest negative impact on retention and volunteer job satisfaction, but that it also impacts on the sense of commitment felt towards the organisation that is developed through socialisation.

Furthermore, these findings suggest that poor working relationships with regular officers have a substantial impact on the emotional connection specials feel towards to the Special Constabulary.

Additional analysis also confirms the detrimental effect of reduced reciprocity, predicting higher levels of burnout and lower levels of connectedness. Finally significant bivariate correlations were identified between particular duty/activity types and the survey variables. This suggested that SNT/local policing duties were associated with reduced determination to continue, whilst those who conducted more training during the course of their volunteerism had lower levels of disengagement.

The following chapter considers the motivational pathway of the JD-R model. It also tests for the presence of cross-processes to determine whether job resources alleviate burnout or whether job demands might be demotivating.

Chapter 6 Connectedness in the Special Constabulary

This section of the thesis employs cross-sectional data to examine the indirect effect of job resources on outcome measures through organisational connectedness (hypotheses 6a-d). It also examines the distinctiveness of the health impairment and motivational pathways of the JD-R model (hypotheses 7a-d and 8a-d). In Sections 6.2 to 6.5 the indirect effect of the following variables are examined:

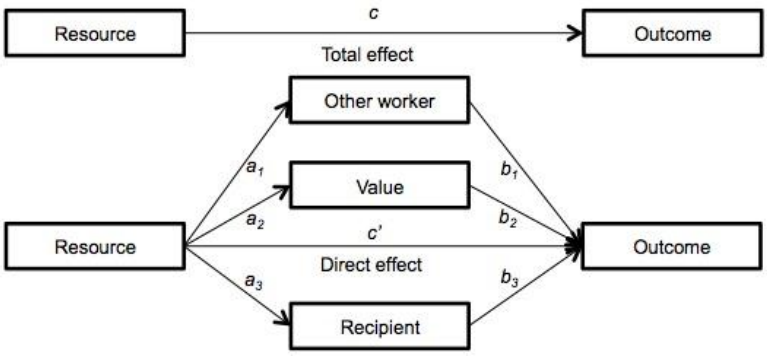
- Perceived access to training
- Task significance
- Feedback
- Social support (supervisory, regular officer, co-volunteer, family)
- Perceived organisational support
- On-the-job learning
- Challenging assignments
- Organisational connectedness (other worker, value, recipient)
- Affective / Normative commitment
- Volunteer job satisfaction
- Determination to continue

Section 6.6 examines the RWA findings regarding the indirect effect of job resources on outcomes, whilst Section 6.7 deals with the proposed cross-processes of the JD-R model, examining the indirect effect of the job demands and job resources through both burnout and connectedness simultaneously.

The indirect effect of job resources on outcomes through connectedness (figure 6.1) will be discussed by each outcome measure with the findings broken down in descending order of the total indirect effect size. However, as a detailed description of the results was provided for the health impairment process, this chapter will provide a more succinct account of the significant findings. Although the results are discussed in order of their total indirect effect size it is important to recognise that this is not an indication of their relative importance. In order to provide further information concerning

the relative importance of each of these indirect relationships RWA was conducted. The results of this analysis are summarised after the findings for each outcome measure have been reported.

Figure 6.1: Indirect paths - connectedness



6.1 Preliminary analysis

Job resources had significant medium to strong correlations with both other worker and value connectedness. For instance, perceived organisation support (r =.573, p<.01) and support from regular officers (r =.519, p<.01) were most strongly correlated with other worker connectedness. Perceived organisational support was also the job resource most strongly correlated with value connectedness, followed by the provision of performance feedback (r =.513, p<.01). Challenging assignments (r =.297, p<.01) and on-the-job learning (r =.285, p<.01) here most strongly correlated with recipient connectedness. Each of the three connectedness components had medium to strong negative correlations with burnout however, the correlations between connectedness and exhaustion whilst significant were weak. Connectedness was also significantly correlated with all outcome measures in the expected direction. These correlations were generally weaker between connectedness and the determination to continue compared to the other outcome variables. Value connectedness was most strongly correlated with determination (r =.358, p<.01) and normative commitment (r =.544, p<.01), whilst other worker connectedness had the strongest correlations with affective commitment (r =.584, p<.01) and job satisfaction (r =.566, p<.01).

6.2 Indirect effect of job resources on the determination to continue

Table 6.1 outlines the total (*c*), direct (*c'*) and total indirect effect ($a_x b_x$) sizes for the individual path models, predicting the indirect effect of job resources on the determination to continue through connectedness. As indicated table 6.1, the top six largest total indirect effect sizes were broadly similar in magnitude. Overall there was strong support for the indirect effect of job resources on the determination to continue. Significant total indirect effects at the 99% level of confidence were found in eight out of 10 of the path models, whilst all 10 of the total indirect effects were significant at the 95% level of confidence.

Table 6.1: Summary table of the total, direct and total indirect effect sizes

Job resource	*c*	LLCI	ULCI	*c'*	LLCI	ULCI	$a_x b_x$	LLCI	ULCI
On-the-job learning	0.781	0.347	1.216	0.447	-0.017	0.911	0.334	0.105	0.612
Regular support	0.325	-0.036	0.686	0.011	-0.394	0.416	0.314	0.078	0.581
Volunteer support	0.176	-0.189	0.540	-0.133	-0.510	0.244	0.309	0.131	0.517
Challenging assignments	0.847	0.340	1.354	0.546	0.023	1.069	0.301	0.089	0.570
Task significance	0.357	-0.062	0.777	0.060	-0.361	0.481	0.297	0.134	0.551
Feedback	0.284	0.028	0.540	0.009	-0.280	0.298	0.275	0.113	0.491
Supervisory support	0.134	-0.153	0.421	-0.098	-0.387	0.191	0.232	0.094	0.416
Perceived organisational support	0.488	0.267	0.708	0.257	-0.097	0.612	0.231	-0.059	0.513
Family support	0.083	-0.361	0.527	-0.084	-0.512	0.343	0.167	-0.002	0.375
Perceived access to training	0.192	0.012	0.371	0.033	-0.156	0.222	0.159	0.061	0.277

Level of significance = 99%. Co-variates: age, gender

In general there was stronger support for the indirect effect of job resources through value connectedness, with this path significant in eight of the 10 models. The specific indirect effect through recipient connectedness was only significant in two of the models. Finally, there was no evidence to support the indirect effect of resources on determination to continue through other worker connectedness.

On-the-job learning

On-the-job learning exhibited the largest total, direct and indirect effect sizes when predicting the determination to continue (table 6.2). As rating on the on-the-job learning scale increased by one unit, determination to continue as a volunteer increased by *c*=0.781 (99%CI[0.347, 1.216]). On-the-job learning predicted significantly higher levels

of other worker, value and recipient connectedness, whilst in turn only value connectedness predicted higher levels of determination to continue.

Table 6.2: Model coefficients: on-the-job learning and determination

		Consequent													
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X (On-the-job learning)	a_1	0.658	0.103	<.001	0.392	0.924	c	0.781	0.167	<.001	0.347	1.216	--	--	--	--
	a_2	0.912	0.147	<.001	0.532	1.292	c'	0.447	0.179	.013	-0.017	0.911	--	--	--	--
	a_3	0.278	0.060	<.001	0.121	0.434							**Total**	0.334	0.095	0.105	0.612
M1		--	--	--	--	--	b_1	0.016	0.125	.899	-0.309	0.340	a_1b_1	0.011	0.084	-0.211	0.245
M2		--	--	--	--	--	b_2	0.267	0.085	.002	0.045	0.488	a_2b_2	0.243	0.096	0.029	0.550
M3							b_3	0.291	0.173	.095	-0.159	0.741	a_3b_3	0.081	0.054	-0.031	0.267
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.233	0.156	-0.680	0.161
		--	--	--	--	--		--	--	--	--	--	C_2	-0.070	0.114	-0.396	0.215
$R^2_{4.5}$	6%	--	--	--	--	--		--	--	--	--	--	C_3	0.162	0.106	-0.090	0.504

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The inclusion of connectedness into the model resulted in a non-significant direct effect (*c'*=0.447, 99%CI[-0.017, 0.911]) and a significant total indirect effect (a_xb_x=0.334, 99% CI[0.105, 0.612]). This result indicates that the relationship between on-the-job learning and the determination to continue as a volunteer is not independent of its relationship through organisational connectedness. Analysis of the specific indirect effects reveals whilst on-the-job learning also has a positive effect through both other worker and recipient connectedness only the path through value connectedness is significant (a_2b_2=0.243, 99% CI[0.029, 0.550]). Additional analysis conducted at the 95% level of confidence was unable to confirm the significance of any of the other specific indirect effects.

Social Support from regular officers

Social support from regular officers was found to have a positive total effect on the determination to continue however, this relationship was only significant at the 95% level of confidence. Despite this, the total indirect effect was significant at the 99% level of confidence (a_xb_x=0.314, 99%CI[0.078, 0.581]), whilst table 6.3 indicates that the direct effect of regular support on the determination to continue became non-significant

once the indirect effect of connectedness was taken into account (*c'*=0.011, 99%CI[-0.394, 0.416]).

Social support from regular officers predicted significantly higher other worker and value connectedness, whilst only value connectedness predicted increased determination (table 6.3). Despite these positive paths only the specific indirect effect through value connectedness (a_2b_2=0.2476, 99%CI[0.061, 0.546]) was significant at the 99% level of confidence. Further analysis conducted at the 95% level of confidence confirmed the significance of the path through recipient connectedness (a_3b_3=0.037, 95%CI[0.001, 0.113]) however, the pairwise contrast analysis was able to distinguish between the magnitude of these two specific indirect effects (c_3=0.210, 95%CI[0.053, 0.423]). Therefore it can be concluded that whilst the effect support from regular officers on the determination to continue is not independent if its effect through organisational connectedness it is value connectedness that is responsible for the magnitude of this indirect effect.

Table 6.3: Model coefficients: social support from regular officers and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Regular officer support)	a_1	0.710	0.077	<.001	0.511	0.909	c	0.325	0.139	.020	-0.036	0.686		--	--	--	--
	a_2	0.829	0.117	<.001	0.524	1.133	c'	0.011	0.156	.944	-0.394	0.416		--	--	--	--
	a_3	0.106	0.050	.036	-0.024	0.236							**Total**	0.314	0.095	0.078	0.581
M1		--	--	--	--	--	b_1	0.041	0.141	.771	-0.325	0.407	a_1b_1	0.029	0.104	-0.242	0.315
M2		--	--	--	--	--	b_2	0.298	0.089	.001	0.068	0.529	a_2b_2	0.247	0.086	0.061	0.546
M3							b_3	0.353	0.182	.053	-0.119	0.825	a_3b_3	0.037	0.027	-0.010	0.136
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.218	0.162	-0.691	0.195
		--	--	--	--	--		--	--	--	--	--	C_2	-0.008	0.115	-0.326	0.308
$R^2_{4.5}$	3%	--	--	--	--	--		--	--	--	--	--	C_3	0.210	0.090	0.006	0.509

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Social support from co-volunteers

Social support from co-volunteers within the Special Constabulary had a significant total indirect effect on the determination to continue (a_xb_x=0.309, 99%CI[0.131, 0.517]) however, the size and direction of the direct effect (*c'*=-0.133, 99%CI[- 0.510, 0.244]) indicates the presence of negative suppression or inconsistent mediation (MacKinnon

et al. 2000). This counter intuitive finding would appear to suggest that for a given level of connectedness co-volunteer support has a negative influence on the determination to continue. However, this unexpected negative direct effect represents the variance between co-volunteer support and determination that is not shared with connectedness. Furthermore the total indirect effect size is both stronger than the direct effect and significant, indicating that the amount of variance shared between co-volunteer support, connectedness and determination is larger than variance shared between co-volunteer support and determination alone. Consequently the non-significant negative direct effect is an artefact within the data that does not belong within the specified model. As the hypotheses in this chapter specify that a significant indirect effect should be observed between job resources and outcomes, and because this indirect effect is larger than the negative direct effect, support for the importance of this job resource in predicting determination to continue is upheld. It is important to note that these findings would not have been discovered had the causal steps method been used. As found in previous research (Omoto and Snyder, 1995; Maslanka, 1996; Snyder et al. 1999), the effects of social support within volunteering may be different to those found in paid work. Here the provision of additional social support that does not contribute towards connectedness lowers the determination to continue.

Table 6.4: Model coefficients: social support from co-volunteers and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.556	0.082	<.001	0.343	0.769	c	0.176	0.140	.212	-0.189	0.540		--	--	--	--
(Volunteer suppport)	a_2	0.652	0.121	<.001	0.337	0.966	c'	-0.133	0.145	.360	-0.510	0.244		--	--	--	--
	a_3	0.170	0.050	.001	0.040	0.300							**Total**	0.309	0.077	0.131	0.517
M1		--	--	--	--	--	b_1	0.109	0.132	.408	-0.232	0.450	a_1b_1	0.061	0.079	-0.141	0.270
M2		--	--	--	--	--	b_2	0.291	0.087	.001	0.065	0.516	a_2b_2	0.189	0.075	0.031	0.412
M3							b_3	0.345	0.175	.049	-0.109	0.799	a_3b_3	0.059	0.035	-0.008	0.178
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.129	0.132	-0.496	0.193
		--	--	--	--	--		--	--	--	--	--	C_2	0.002	0.093	-0.244	0.239
$R^2_{4.5}$	1%	--	--	--	--	--		--	--	--	--	--	C_3	0.131	0.083	-0.058	0.373

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The path through value connectedness was the only significant specific indirect effect at the 99% level of confidence (table 6.4). Once again, additional analysis at the 95%

level found the path though recipient connectedness to be significant (a_3b_3=0.059, 95%CI[0.008, 0.153]) however, the pairwise contrast analysis unable to distinguish between the magnitude of these effects (c_3=0.131, 95% CI[-0.015, 0.320]).

Challenging assignments

The total effect of challenging assignments on the determination to continue was the largest of any of the job resources measured in this study (c=0.847, 99%CI[0.340, 1.354]). Whilst there was evidence of a significant total indirect effect (a_xb_x=0.301, 99%CI[0.089, 0.570]), the direct effect of challenging assignments on the determination to continue (c'=0.546, 99%CI[0.023, 1.069]) remained significant (table 6.5).

Table 6.5: Model coefficients: challenging assignments and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Challen-	a_1	0.674	0.121	<.001	0.359	0.989	c	0.847	0.195	<.001	0.340	1.354		--	--	--	--
ging assign-	a_2	0.721	0.177	<.001	0.262	1.180	c'	0.546	0.202	.007	0.023	1.069		--	--	--	--
ments)	a_3	0.319	0.070	<.001	0.138	0.501							**Total**	0.301	0.090	0.089	0.570
M1		--	--	--	--	--	b_1	0.001	0.126	.995	-0.325	0.326	a_1b_1	0.001	0.084	-0.218	0.219
M2		--	--	--	--	--	b_2	0.293	0.084	.001	0.075	0.511	a_2b_2	0.211	0.084	0.043	0.495
M3							b_3	0.278	0.173	.110	-0.172	0.728	a_3b_3	0.089	0.061	-0.041	0.289
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.211	0.140	-0.630	0.109
		--	--	--	--	--		--	--	--	--	--	C_2	-0.088	0.118	-0.429	0.210
$R^2_{4.5}$	5%	--	--	--	--	--		--	--	--	--	--	C_3	0.122	0.107	-0.137	0.421

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

As with the previous path models only the path through value connectedness was significant (a_2b_2=0.211, 99% CI[0.043, 0.495]), with no additional significant paths at the 95% level of confidence. These findings indicate that the effect of challenging assignments on the determination to continue is not independent of its effect through value connectedness.

Task significance

Task significance had a significant total effect on the determination to continue however, this effect was only significant at the 95% level of confidence (c=0.357 95%CI[0.039, 0.675]). Task significance significantly predicted each connectedness component however, only value connectedness significantly predicted the

determination to continue (table 6.6). The total indirect effect through connectedness was significant at the 99% level of confidence (a_xb_x=0.297, 99%CI[0.134, 0.551]), with the specific indirect effect of value connectedness responsible for a considerable proportion of the indirect effect (a_2b_2=0.192, 99%CI[0.035, 0.462]). Additional analysis at the 95% level of confidence confirmed the additional significant specific indirect effect through recipient connectedness (a_3b_3=0.079, 95% CI[0.013, 0.184]), with the pairwise contrast analysis unable to distinguish between the magnitude of these two indirect effect sizes (c_3=0.113, 95%CI[-0.013, 0.184]). Therefore it can be concluded that the effect of task significance on the determination to continue as a volunteer is not independent of its effect through value and recipient connectedness.

Table 6.6: Model coefficients: task significance and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Task significance)	a_1	0.435	0.100	<.001	0.176	0.694	c	0.357	0.162	.028	-0.062	0.777		--	--	--	--
	a_2	0.647	0.141	<.001	0.280	1.014	c'	0.060	0.162	.711	-0.361	0.481		--	--	--	--
	a_3	0.226	0.057	<.001	0.079	0.374							**Total**	0.297	0.076	0.134	0.551
M1		--	--	--	--	--	b_1	0.058	0.126	.643	-0.267	0.384	a_1b_1	0.025	0.057	-0.122	0.206
M2		--	--	--	--	--	b_2	0.297	0.086	.001	0.074	0.520	a_2b_2	0.192	0.077	0.035	0.462
M3							b_3	0.351	0.175	.047	-0.104	0.806	a_3b_3	0.079	0.043	-0.012	0.213
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.167	0.114	-0.534	0.102
		--	--	--	--	--		--	--	--	--	--	C_2	-0.054	0.081	-0.273	0.175
$R^2_{4.5}$	2%	--	--	--	--	--		--	--	--	--	--	C_3	0.113	0.086	-0.091	0.378

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Feedback

Feedback had significant total effect on the determination to continue (c=0.284, 99%CI[0.028, 0.540]) and a non-significant and close to zero once direct effect once the indirect effect of connectedness was taken into account (c'=0.009, 99%CI[-0.280, 0.298]). Feedback predicted significantly higher levels of other worker and value connectedness however, only value connectedness predicted higher levels of determination. The significant total indirect effect (a_xb_x=0.275, 99%CI[0.113, 0.491]) was largely attributable to the path through value connectedness (a_2b_2=0.221, 99%CI[0.027, 0.455]), which was the only significant specific indirect effect at the 99% level of confidence. Additional analysis at the 95% level of confidence confirmed the

significance of the weaker specific indirect effect through recipient connectedness (a_3b_3=0.027, 95%CI[0.003, 0.073]) however, the pairwise contrast analysis was able to distinguish between the magnitudes of these two specific indirect effects (c_3=0.194, 95%CI[0.053, 0.374]). Therefore it can be concluded that whilst the effect of feedback on the determination to continue is not independent if its effect through connectedness, it is value connectedness that is responsible for the magnitude of this indirect effect.

Table 6.7: Model coefficients: feedback and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.463	0.057	<.001	0.316	0.610	c	0.284	0.099	.004	0.028	0.540		--	--	--	--
(Feedback)	a_2	0.738	0.078	<.001	0.535	0.940	c'	0.009	0.111	.936	-0.280	0.298		--	--	--	--
	a_3	0.074	0.036	.040	-0.019	0.166							**Total**	0.275	0.071	0.113	0.491
M1		--	--	--	--	--	b_1	0.060	0.128	.641	-0.272	0.391	a_1b_1	0.028	0.061	-0.126	0.205
M2		--	--	--	--	--	b_2	0.300	0.090	.001	0.067	0.532	a_2b_2	0.221	0.079	0.027	0.455
M3							b_3	0.362	0.173	.038	-0.088	0.812	a_3b_3	0.027	0.018	-0.003	0.097
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.193	0.120	-0.515	0.117
		--	--	--	--	--		--	--	--	--	--	C_2	0.001	0.069	-0.183	0.189
$R^2_{4.5}$	4%	--	--	--	--	--		--	--	--	--	--	C_3	0.194	0.080	0.005	0.439

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Social support from supervisors

Despite social support from supervisors having a non-significant total effect on determination[12] (c=0.134, 99%CI[-0.153, 0.421]), a significant total indirect effect was found (a_xb_x=0.232, 99%CI[0.091, 0.415]). As with co-volunteer support, there was evidence of negative suppression as the direction of the direct effect was in the opposite direction to that of the direct effect (c'=-0.098, 99%CI[-0.387, 0.191]).

As the total indirect effect is both significant and greater than that of the direct effect (table 6.8) support for the indirect effect of this job resource is upheld. The path through value connectedness was significant at the 99% level of confidence (a_2b_2=0.161, 99%CI[0.033, 0.362]), whilst the specific indirect effect through recipient connectedness became significant at the 95% level of confidence (a_3b_3=0.038, 95%CI[0.005, 0.101]). However, the pairwise contrast analysis was able to distinguish between the magnitudes of these effects (c_3=0.123, 95%CI[0.011, 0.281]).

[12] This relationship was non-significant at both the 99% and 95% level of confidence.

Table 6.8: Model coefficients: social support from supervisors and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Super-visory support)	a_1	0.395	0.066	<.001	0.224	0.567	c	0.134	0.111	.225	-0.153	0.421		--	--	--	--
	a_2	0.516	0.096	<.001	0.268	0.764	c'	-0.098	0.112	.380	-0.387	0.191		--	--	--	--
	a_3	0.093	0.040	.020	-0.010	0.197							**Total**	0.232	0.062	0.091	0.415
M1		--	--	--	--	--	b_1	0.086	0.128	.505	-0.247	0.418	a_1b_1	0.034	0.051	-0.099	0.183
M2		--	--	--	--	--	b_2	0.312	0.086	<.001	0.088	0.535	a_2b_2	0.161	0.062	0.033	0.362
M3							b_3	0.406	0.172	.019	-0.041	0.853	a_3b_3	0.038	0.024	-0.001	0.129
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.127	0.095	-0.404	0.107
		--	--	--	--	--		--	--	--	--	--	C_2	-0.004	0.061	-0.167	0.160
$R^2_{4.5}$	0%	--	--	--	--	--		--	--	--	--	--	C_3	0.123	0.067	-0.024	0.328

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Perceived organisational support

Perceived organisational support had a significant total effect on the determination to continue (c=0.488, 99%CI[0.267, 0.708]), whilst the direct effect became non-significant after the inclusion of connectedness into the model (c'= 0.257, 99%CI[-0.097, 0.612]). The total indirect effect of perceived organisational support was significant however, only at the 95% level of confidence (a_xb_x=0.231, 95%CI[0.025, 0.446]).

Table 6.9: Model coefficients: perceived organisational support and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (POS)	a_1	0.518	0.047	<.001	0.425	0.612	c	0.488	0.085	<.001	0.321	0.655		--	--	--	--
	a_2	1.030	0.051	<.001	0.930	1.129	c'	0.257	0.137	.061	-0.012	0.526		--	--	--	--
	a_3	0.132	0.031	<.001	0.070	0.193							**Total**	0.231	0.107	0.025	0.446
M1		--	--	--	--	--	b_1	0.041	0.125	.743	-0.205	0.287	a_1b_1	0.021	0.066	-0.100	0.163
M2		--	--	--	--	--	b_2	0.160	0.113	.160	-0.064	0.383	a_2b_2	0.164	0.113	-0.059	0.392
M3							b_3	0.341	0.172	.049	0.002	0.681	a_3b_3	0.045	0.025	0.006	0.106
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.143	0.151	-0.439	0.161
		--	--	--	--	--		--	--	--	--	--	C_2	-0.024	0.079	-0.176	0.137
$R^2_{4.5}$	11%	--	--	--	--	--		--	--	--	--	--	C_3	0.120	0.114	-0.104	0.353

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=95%

Analysis of the specific indirect effects (table 6.9) reveals that only the path through recipient connectedness is significant (a_3b_3=0.045, 95%CI[0.006, 0.106]). Finally, the commonality analysis found the amount of variance in determination to continue explained by perceived organisational support and connectedness but attributable to neither alone was $R^2_{4.5}$=11%. This indicates that whilst this relationship may only be

significant at the 95% level of confidence perceived organisational support plays a relatively important role in the determination to continue as a volunteer compared to other job resources.

Social support from the family

Social support from the family had an indirect effect on the determination to continue however, this relationship was only significant at the 95% level of confidence (table 6.10). Although neither the total or direct effect of family support was significant, analysis of the specific indirect effect indicates that the path through connectedness was significant ($a_x b_x$=0.167, 95%CI[0.048, 0.320]).

Table 6.10: Model coefficients: family support and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Family support)	a_1	0.376	0.106	.001	0.167	0.585	c	0.083	0.171	.630	-0.254	0.420		--	--	--	--
	a_2	0.351	0.153	.023	0.050	0.652	c'	-0.084	0.165	.609	-0.409	0.240		--	--	--	--
	a_3	0.094	0.061	.127	-0.027	0.214							**Total**	0.167	0.069	0.048	0.320
M1		--	--	--	--	--	b_1	0.080	0.127	.531	-0.171	0.330	a_1b_1	0.030	0.050	-0.057	0.149
M2		--	--	--	--	--	b_2	0.294	0.086	.001	0.126	0.463	a_2b_2	0.103	0.053	0.025	0.244
M3							b_3	0.361	0.174	.039	0.018	0.704	a_3b_3	0.034	0.031	-0.005	0.128
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.073	0.083	-0.272	0.066
		--	--	--	--	--		--	--	--	--	--	C_2	-0.004	0.063	-0.142	0.112
$R^2_{4.5}$	1%	--	--	--	--	--		--	--	--	--	--	C_3	0.069	0.057	-0.025	0.201

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=95%

Once again there was evidence of negative suppression when assessing the impact of social support on the determination to continue. However, as the total indirect effect through connectedness is larger in magnitude than the direct effect this indicates the overall positive influence of family support through connectedness. Analysis of the specific indirect effects indicates that only the effect through value connectedness is significant (a_2b_2=0.103, 95%CI[0.025, 0.244]). Therefore, whilst family support does not have a significant total effect on determination, there is evidence to suggest that value connectedness plays a substantial role in the positive relationship between these two variables.

Perceived access to training

Perceived access to training had the weakest significant indirect effect on the determination to continue. The total effect of perceived access to training (c=0.192, 99% CI[0.012, 0.371]) became non-significant (c'=0.033, 99%CI[-0.156, 0.222]) once the indirect effect of connectedness was accounted for. This resulted in a significant total indirect effect ($a_x b_x$=0.159, 99%CI[0.061, 0.277]), of which specific indirect effect through value connectedness ($a_2 b_2$=0.126, 99%CI[0.018, 0.255]) was largely responsible. Additional analysis confirmed the significance of the weaker specific indirect effect through recipient connectedness at the 95% level of confidence ($a_3 b_3$=0.019, 95%CI[0.002, 0.055]) however, the magnitude of the effect through value connectedness was statistically distinguishable from the effect through recipient connectedness (c_3=0.107, 95%CI[0.020, 0.208]). Therefore, it can be concluded that whilst the effect of perceived access to training on the determination to continue is not independent of its effect through connectedness, it is value connectedness that is largely responsible for the indirect effect.

Table 6.11: Model coefficients: perceived access to training and determination

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Determination to continue (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.227	0.042	<.001	0.117	0.336	c	0.192	0.069	.006	0.012	0.371		--	--	--	--
(Perceived	a_2	0.436	0.057	<.001	0.288	0.584	c'	0.033	0.073	.653	-0.156	0.222		--	--	--	--
access to training)	a_3	0.053	0.025	.033	-0.011	0.118							**Total**	0.159	0.041	0.061	0.277
M1		--	--	--	--	--	b_1	0.059	0.125	.639	-0.266	0.384	$a_1 b_1$	0.013	0.029	-0.057	0.107
M2		--	--	--	--	--	b_2	0.289	0.090	.001	0.057	0.522	$a_2 b_2$	0.126	0.046	0.018	0.255
M3							b_3	0.360	0.173	.039	-0.089	0.809	$a_3 b_3$	0.019	0.013	-0.002	0.065
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.113	0.064	-0.282	0.050
		--	--	--	--	--		--	--	--	--	--	C_2	-0.006	0.035	-0.101	0.098
$R^2_{4.5}$	3%	--	--	--	--	--		--	--	--	--	--	C_3	0.107	0.047	-0.004	0.245

Covariates: age, gender. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

6.2.1 Conclusion: determination to continue

Overall strong support was found for hypothesis 6a. With the exception of perceived organisational support and family support, all other job resources were found to have a significant total indirect effect on the determination to continue through organisational

connectedness at the 99% level of confidence. This analysis provided support for the specific indirect effect through value connectedness however, analysis at the 95% found support for the path through recipient connectedness for some job resources.

On-the-job learning had the largest total indirect effect in contrast to perceived access to training, which had the weakest. This finding indicates that whilst the perceived availability of training is important to special constables, it is the opportunity to go out on duty and develop these skills which volunteers find more valuable. The provision of challenging assignments also had an important influence on determination however, less of its effect was transmitted through organisational connectedness. This result may be explained by the absence of task connectedness, which was excluded due to issues of discriminant validity (Chapter 4). Another interesting finding surrounds the role of social support in the Special Constabulary. Whilst strong support was found for the indirect effect of social support from regular officers, there was evidence of inconsistent mediation for the other sources of support. This indicates that the provision of additional social support that is unrelated to connectedness may have a negative influence on the determination to continue. Possible reasons for this include the notion that this additional support may be counterproductive or unwanted and points to the complex relationship between social support and volunteer outcomes found in other volunteer based research (e.g. Omoto and Snyder, 1995; Maslanka, 1996).

6.3 Indirect effect of job resources on affective commitment

This section reports the findings of the path models predicting affective commitment. Once again the results are structured to discuss the total indirect effect sizes in descending order. Table 6.12 provides a summary of the total, direct and total indirect effects when affective commitment is used as the dependent variable in the path model.

Table 6.12: Summary table of the total, direct and total indirect effect sizes

	c	LLCI	ULCI	*c'*	LLCI	ULCI	$a_x b_x$	LLCI	ULCI
On-the-job learning	0.366	0.082	0.650	-0.106	-0.355	0.143	0.472	0.300	0.671
Challenging assignments	0.317	-0.014	0.648	-0.111	-0.392	0.169	0.428	0.225	0.627
Perceived organisational support	0.437	0.304	0.571	0.037	-0.153	0.227	0.400	0.233	0.592
Regular support	0.527	0.308	0.745	0.142	-0.068	0.352	0.385	0.252	0.545
Volunteer support	0.286	0.052	0.519	-0.061	-0.262	0.140	0.347	0.199	0.529
Task significance	0.249	-0.021	0.518	-0.067	-0.292	0.158	0.316	0.143	0.514
Feedback	0.350	0.193	0.508	0.048	-0.105	0.201	0.302	0.192	0.441
Supervisory support	0.270	0.088	0.451	0.020	-0.137	0.176	0.250	0.128	0.374
Perceived access to training	0.123	0.008	0.238	-0.070	-0.171	0.031	0.193	0.117	0.282
Family support	0.202	-0.079	0.483	0.011	-0.216	0.238	0.191	0.032	0.380

Level of significance = 99%. Co-variates: age, gender, rank, future application to the regulars, ethnicity

On-the-Job learning

On-the-job learning had the largest total indirect effect on affective commitment ($a_x b_x$=0.472, 99% CI[0.300, 0.671]) compared to other job resources. This job resource had a significant positive influence on all three components of connectedness, which in turn each predicted higher levels of affective commitment (table 6.13). Furthermore, analysis of the specific indirect effects reveals that the paths through all three forms of connectedness were significant at the 99% level of confidence, with the pairwise contrast analysis unable to distinguish between any of the magnitudes of these effects.

Furthermore, it should be noted that whilst the total indirect effect of on-the-job learning on the determination to continue was significant there was also evidence of negative suppression, indicated by the negative direct effect. This suggests that any additional on-the-job learning provided that does not share its variance with connectedness may actually reduce levels of affective commitment. Therefore, it may be the case that there is a finite level of on-the-job learning that can be ensured before it has a negative effect on affective commitment. Overall, this finding indicates that the effect of on-the-job learning on affective commitment is not independent of its effect through all three components of connectedness.

Table 6.13: Model coefficients: on-the-job learning and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (On-the-job learning)	a_1	0.607	0.101	<.001	0.345	0.870	c	0.366	0.109	.001	0.082	0.650		--	--	--	--
	a_2	0.875	0.148	<.001	0.490	1.259	c'	-0.106	0.096	.272	-0.355	0.143		--	--	--	--
	a_3	0.271	0.061	<.001	0.112	0.429							**Total**	0.472	0.072	0.300	0.671
M1		--	--	--	--	--	b_1	0.311	0.068	<.001	0.134	0.489	a_1b_1	0.189	0.056	0.069	0.363
M2		--	--	--	--	--	b_2	0.247	0.046	<.001	0.129	0.366	a_2b_2	0.216	0.065	0.077	0.417
M3							b_3	0.245	0.093	.009	0.004	0.486	a_3b_3	0.066	0.028	0.006	0.163
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.027	0.100	-0.296	0.220
		--	--	--	--	--		--	--	--	--	--	C_2	0.123	0.064	-0.033	0.308
$R^2_{4.5}$	8%	--	--	--	--	--		--	--	--	--	--	C_3	0.150	0.072	-0.017	0.359

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Challenging assignments

Similar findings to those of on-the-job learning were found when examining the indirect effect of challenging assignments on affective commitment. Challenging assignments predicted significantly higher levels of each component of connectedness, which in turn predicted higher levels of affective commitment. The total effect of challenging assignments was only significant at the 95% level of confidence (*c*=0.317 (95%CI[0.066, 0.568]), however, a significant total indirect effect through connectedness was found (a_xb_x=0.428, 99%CI[0.225, 0.627]) at the 99% level of confidence.

Table 6.14: Model coefficients: challenging assignments and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Challen-ging assig-nments)	a_1	0.609	0.119	<.001	0.300	0.918	c	0.317	0.128	.014	-0.014	0.648		--	--	--	--
	a_2	0.670	0.178	<.001	0.209	1.132	c'	-0.111	0.108	.304	-0.392	0.169		--	--	--	--
	a_3	0.311	0.071	<.001	0.127	0.494							**Total**	0.428	0.078	0.225	0.627
M1		--	--	--	--	--	b_1	0.313	0.069	<.001	0.134	0.491	a_1b_1	0.190	0.060	0.066	0.388
M2		--	--	--	--	--	b_2	0.241	0.045	<.001	0.124	0.358	a_2b_2	0.162	0.060	0.042	0.355
M3							b_3	0.246	0.093	.009	0.004	0.487	a_3b_3	0.076	0.032	0.008	0.183
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	0.029	0.096	-0.240	0.266
		--	--	--	--	--		--	--	--	--	--	C_2	0.114	0.066	-0.046	0.317
$R^2_{4.5}$	10%	--	--	--	--	--		--	--	--	--	--	C_3	0.085	0.069	-0.075	0.293

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Once again all three of the specific indirect effects through connectedness were significant with the pairwise contrast analysis unable to distinguish between any of their

magnitudes (table 6.14). As seen with the previous analysis there is evidence of negative suppression, suggesting that any additional variance between challenging assignments and affective commitment that was not shared with connectedness had a non-significant negative effect on the outcome. This could suggest that the provision of additional challenging work that is not deemed motivational may impact negatively upon the emotional attachment felt towards the Special Constabulary.

Perceived organisational support

Perceived organisational support had the second largest total effect on affective commitment (*c*=0.437 (99%CI[0.304, 0.571]), whilst the direct effect (***c'***=0.037, 99%CI[-0.153, 0.227]) became non-significant once the indirect effect of connectedness was taken into account. Perceived organisational support predicted significantly higher levels of other worker, value and recipient connectedness however, only other worker and valued connectedness predicted affective commitment (table 6.15).

Table 6.15: Model coefficients: perceived organisational support and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (POS)	a_1	0.492	0.047	<.001	0.370	0.615	c	0.437	0.051	<.001	0.304	0.571		--	--	--	--
	a_2	1.030	0.051	<.001	0.896	1.163	c'	0.037	0.073	.613	-0.153	0.227		--	--	--	--
	a_3	0.126	0.032	<.001	0.042	0.209							**Total**	0.400	0.070	0.233	0.592
M1		--	--	--	--	--	b_1	0.298	0.068	<.001	0.121	0.475	a_1b_1	0.147	0.039	0.050	0.253
M2		--	--	--	--	--	b_2	0.219	0.061	<.001	0.061	0.376	a_2b_2	0.225	0.073	0.036	0.422
M3							b_3	0.226	0.092	.015	-0.012	0.464	a_3b_3	0.028	0.014	0.001	0.076
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.078	0.094	-0.329	0.167
		--	--	--	--	--		--	--	--	--	--	C_2	0.118	0.044	0.005	0.231
$R^2_{4.5}$	27%	--	--	--	--	--		--	--	--	--	--	C_3	0.197	0.075	0.007	0.402

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Each of the specific indirect effects was significant at the 99% level of confidence, with the paths through other worker and value connectedness statistically distinguishable from the path through recipient connectedness. The amount of variance in affective commitment explained by perceived organisational support and connectedness but attributable to neither alone was $R^2_{4.5}$=27% indicating the relative importance of this variable towards affective commitment. Therefore whilst the effect of perceived

organisational support on affective commitment is not independent of its effect through connectedness, it is the paths through other worker and value connectedness that are responsible for the magnitude of this effect.

Support from regular officers

Social support from regular officers had the largest total effect on affective commitment compared to all other job resources when predicting affective commitment (c=0.527, 99%CI[0.308, 0.745]), as well as a significant total indirect effect through organisational connectedness ($a_x b_x$=0.385, 99%CI[0.252, 0.545]). The paths through other worker ($a_1 b_1$=0.190, 99%CI[0.062, 0.346]) and value ($a_2 b_2$=0.178, 99%CI[0.054, 0.365]) connectedness were significant however, the pairwise contrast analysis was unable to distinguish between these effects (table 6.16).

Table 6.16: Model coefficients: support from regular officers and affective commitment

		Consequent													
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X (Regular support)	a_1	0.668	0.079	<.001	0.463	0.872	c	0.527	0.084	<.001	0.308	0.745	--	--	--	--
	a_2	0.801	0.122	<.001	0.484	1.117	c'	0.142	0.081	.080	-0.068	0.352	--	--	--	--
	a_3	0.093	0.052	.076	-0.043	0.228							**Total**	0.385	0.057	0.252	0.545
M1		--	--	--	--	--	b_1	0.284	0.073	<.001	0.095	0.473	$a_1 b_1$	0.190	0.054	0.062	0.346
M2		--	--	--	--	--	b_2	0.222	0.045	<.001	0.105	0.340	$a_2 b_2$	0.178	0.060	0.054	0.365
M3							b_3	0.181	0.093	.052	-0.060	0.421	$a_3 b_3$	0.017	0.013	-0.006	0.067
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	0.012	0.098	-0.254	0.252
		--	--	--	--	--		--	--	--	--	--	C_2	0.173	0.057	0.038	0.332
$R^2_{4.5}$	18%	--	--	--	--	--		--	--	--	--	--	C_3	0.161	0.063	0.027	0.347

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The commonality analysis found the amount of variance in affective commitment explained by supervisory support and connectedness but attributable to neither alone was $R^2_{4.5}$=18%. This indicates that relative to other variables, support from regular officers plays an important role in predicting affective commitment. Therefore it can be concluded that the effect of support from regular officers on affective commitment is not independent of its effect through other work and value connectedness.

Co-volunteer support

As seen in the previous section, there was evidence of negative suppression in the relationship between co-volunteer support and affective commitment, once the indirect effect of organisational connectedness had been taken into account. However, as the magnitude of the total indirect effect (a_xb_x=0.347, 99%CI[0.199, 0.529]) through connectedness is greater than that of the non-significant direct effect (table 6.17), support for the positive indirect effect of co-volunteer support is upheld. Analysis of the specific indirect effects indicates that the path through each component was significant was significant however, the pairwise contrast analysis was unable to distinguish between these effects. Therefore the effect of co-volunteer support of affective commitment is not independent of its effect through other worker, value and recipient connectedness.

Table 6.17: Model coefficients: co-volunteer and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Co-volunteer support)	a_1	0.511	0.083	<.001	0.294	0.727	c	0.286	0.090	.002	0.052	0.519		--	--	--	--
	a_2	0.625	0.125	<.001	0.300	0.949	c'	-0.061	0.077	.429	-0.262	0.140		--	--	--	--
	a_3	0.160	0.052	.002	0.025	0.295							**Total**	0.347	0.063	0.199	0.529
M1		--	--	--	--	--	b_1	0.311	0.070	<.001	0.129	0.492	a_1b_1	0.159	0.053	0.049	0.328
M2		--	--	--	--	--	b_2	0.240	0.045	<.001	0.122	0.358	a_2b_2	0.150	0.050	0.050	0.316
M3							b_3	0.240	0.092	.009	0.002	0.477	a_3b_3	0.038	0.020	0.002	0.108
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	0.009	0.083	-0.209	0.235
		--	--	--	--	--		--	--	--	--	--	C_2	0.120	0.056	-0.011	0.301
$R^2_{4.5}$	10%	--	--	--	--	--		--	--	--	--	--	C_3	0.112	0.056	-0.013	0.284

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Task significance

Task significance had a significant total indirect effect on affective commitment (a_xb_x=0.316, 99% CI[0.143, 0.514]) through connectedness however, its total effect was only significant at the 95% level of confidence (c=0.249, 95%CI[0.044, 0.453]). As indicated by table 6.18 each of the specific indirect effects through connectedness were statistically significant at the 99% level of confidence. The largest of these effects through value connectedness (a_2b_2=0.148, 99%CI[0.052, 0.302]) however, the pairwise

contrast analysis was unable to distinguish between the magnitudes of any of these specific indirect effects. Therefore it can be concluded that the effect of task significance on affective commitment is not independent of its effect through all three components of connectedness.

Table 6.18: Model coefficients: task significance and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Task significance)	a_1	0.382	0.099	<.001	0.126	0.639	c	0.249	0.104	.017	-0.021	0.518		--	--	--	--
	a_2	0.608	0.144	<.001	0.236	0.981	c'	-0.067	0.087	.439	-0.292	0.158		--	--	--	--
	a_3	0.215	0.058	<.001	0.064	0.366							**Total**	0.316	0.071	0.143	0.514
M1		--	--	--	--	--	b_1	0.304	0.068	<.001	0.127	0.480	a_1b_1	0.116	0.045	0.029	0.287
M2		--	--	--	--	--	b_2	0.244	0.045	<.001	0.126	0.362	a_2b_2	0.148	0.048	0.052	0.302
M3							b_3	0.240	0.093	.010	-0.001	0.480	a_3b_3	0.051	0.026	0.004	0.146
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.032	0.066	-0.204	0.147
		--	--	--	--	--		--	--	--	--	--	C_2	0.065	0.052	-0.054	0.230
$R^2_{4.5}$	9%	--	--	--	--	--		--	--	--	--	--	C_3	0.097	0.051	-0.020	0.259

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Feedback

The provision of feedback had a significant total effect on affective commitment (*c*=0.350, 99%CI[0.193, 0.508]), which became non-significant after accounting for the indirect effect of connectedness (*c'*=0.048, 99%CI[-0.105, 0.201]). Feedback also had a significant total indirect effect (a_xb_x=0.302, 99%CI[0.192, 0.441]) on affective commitment. The specific indirect effects through other worker and value connectedness were both significant (table 6.19) however, the pairwise contrast analysis was unable to distinguish between the two at either the 99% or 95% level of confidence (c_1=-.039, 95%CI[-0.226, 0.142]). Additional analysis at the 95% level also revealed the smaller path through recipient connectedness to be significant. Therefore it can be concluded that the effect of feedback on affective commitment is not independent of its effect through all three components of connectedness.

Table 6.19: Model coefficients: feedback and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Affective commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.425	0.057	<.001	0.278	0.571	c	0.350	0.061	<.001	0.193	0.508		--	--	--	--
(Feedback)	a_2	0.717	0.079	<.001	0.511	0.923	c'	0.048	0.059	.414	-0.105	0.201		--	--	--	--
	a_3	0.067	0.036	.066	-0.027	0.162							**Total**	0.302	0.046	0.192	0.441
M1		--	--	--	--	--	b_1	0.291	0.069	<.001	0.112	0.470	a_1b_1	0.124	0.035	0.046	0.230
M2		--	--	--	--	--	b_2	0.227	0.047	<.001	0.104	0.350	a_2b_2	0.163	0.050	0.054	0.303
M3							b_3	0.232	0.092	.012	-0.006	0.471	a_3b_3	0.016	0.010	-0.003	0.053
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.039	0.074	-0.226	0.142
		--	--	--	--	--		--	--	--	--	--	C_2	0.108	0.037	0.021	0.212
$R^2_{4.5}$	17%	--	--	--	--	--		--	--	--	--	--	C_3	0.147	0.052	0.032	0.291

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Supervisory support

Supervisory support had a significant total indirect effect on affective commitment (a_xb_x=0.250, 99%CI[0.128, 0.374]), whilst the direct effect was non-significant after the inclusion of connectedness into the model (*c'*=0.020, 99%CI[-0.137, 0.176]). The specific indirect paths through other worker and value connectedness were significant at 99%, whilst the weaker effect through recipient connectedness was significant at 95% confidence (a_3b_3=0.019, 95%CI[0.002, 0.053]). The specific indirect effects through other worker and value connectedness were distinguishable from recipient connectedness but not from each other (c_1=-0.005, 99%CI[-0.177, 0.151]). Therefore, whilst the effect of supervisory support on affective commitment is not independent of its effect through all three components of connectedness, other worker and value connectedness are responsible for the magnitude of this effect.

Table 6.20: Model coefficients: social support from supervisors and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Affective commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Super-	a_1	0.371	0.065	<.001	0.202	0.540	c	0.270	0.070	<.001	0.088	0.451		--	--	--	--
visory	a_2	0.497	0.096	<.001	0.247	0.746	c'	0.020	0.060	.747	-0.137	0.176		--	--	--	--
support)	a_3	0.086	0.040	.034	-0.019	0.191							**Total**	0.250	0.047	0.128	0.374
M1		--	--	--	--	--	b_1	0.305	0.071	<.001	0.121	0.488	a_1b_1	0.113	0.037	0.035	0.227
M2		--	--	--	--	--	b_2	0.237	0.047	<.001	0.116	0.358	a_2b_2	0.118	0.041	0.034	0.251
M3							b_3	0.224	0.093	.017	-0.018	0.466	a_3b_3	0.019	0.012	-0.001	0.065
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.005	0.062	-0.177	0.151
		--	--	--	--	--		--	--	--	--	--	C_2	0.094	0.040	0.003	0.212
$R^2_{4.5}$	11%	--	--	--	--	--		--	--	--	--	--	C_3	0.098	0.045	0.001	0.235

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Perceived access to training

Perceived access to training had the weakest total effect on affective commitment compared to all job resources, whilst the direction of the indirect effect indicates the presence of negative suppression (table 6.21). Despite this, the size and magnitude of the total indirect effect (a_xb_x=0.193, 99%CI[0.117, 0.282]) supports the positive indirect effect of perceived access to training on affective commitment.

Table 6.21: Model coefficients: perceived access and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.213	0.041	<.001	.11	.32	c	0.123	0.044	.006	0.008	0.238		--	--	--	--
(Perceived acces to training)	a_2	0.432	0.058	<.001	.28	.58	c'	-0.070	0.039	.072	-0.171	0.031		--	--	--	--
	a_3	0.055	0.025	.031	-.01	.12							**Total**	0.193	0.032	0.117	0.282
M1		--	--	--	--	--	b_1	0.306	0.068	<.001	0.130	0.481	a_1b_1	0.065	0.020	0.023	0.128
M2		--	--	--	--	--	b_2	0.266	0.047	<.001	0.143	0.388	a_2b_2	0.115	0.027	0.053	0.197
M3							b_3	0.232	0.091	.011	-0.004	0.469	a_3b_3	0.013	0.008	-0.001	0.043
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.050	0.037	-0.154	0.049
		--	--	--	--	--		--	--	--	--	--	C_2	0.052	0.021	0.004	0.118
$R^2_{4.5}$	9%	--	--	--	--	--		--	--	--	--	--	C_3	0.102	0.027	0.038	0.183

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The specific indirect effects through other worker and value connectedness were significant however, the analysis could not distinguish between these two effects. Therefore, this analysis indicates that the effect of perceived access to training on affective commitment is not independent of its effect through connectedness.

Family support

Although social support from the family predicted higher levels of affective commitment the total effect was not significant at either the 99% or 95% level of confidence. Despite this, family support had a significant total indirect effect (a_xb_x=0.191, 99%CI[0.032, 0.380]) on affective commitment through connectedness. The path through other worker connectedness was the only significant specific indirect effect (a_1b_1=0.099, 99% CI[0.023, 0.247]) at the 99% level of confidence, whilst the path through value connectedness (a_2b_2=0.073, 95%CI[0.012, 0.173]) was significant at the 95% level. Therefore, whilst the provision of family support does not have a significant effect on

affective commitment, the indirect effects through other worker and value connectedness are significant.

Table 6.22: Model coefficients: social support from the family and affective commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Affective commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Family support)	a_1	0.325	0.104	.002	0.055	0.594	c	0.202	0.108	.064	-0.079	0.483		--	--	--	--
	a_2	0.309	0.153	.045	-0.088	0.707	c'	0.011	0.087	.901	-0.216	0.238		--	--	--	--
	a_3	0.088	0.062	.156	-0.072	0.248							**Total**	0.191	0.065	0.032	0.380
M1		--	--	--	--	--	b_1	0.304	0.069	<.001	0.125	0.483	a_1b_1	0.099	0.040	0.023	0.247
M2		--	--	--	--	--	b_2	0.236	0.045	<.001	0.118	0.353	a_2b_2	0.073	0.040	-0.010	0.208
M3							b_3	0.222	0.092	.017	-0.017	0.462	a_3b_3	0.020	0.018	-0.016	0.093
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	0.026	0.052	-0.125	0.161
		--	--	--	--	--		--	--	--	--	--	C_2	0.079	0.043	-0.016	0.219
$R^2_{4.5}$	8%	--	--	--	--	--		--	--	--	--	--	C_3	0.053	0.040	-0.036	0.184

Covariates: age, gender, rank future application to the regulars, ethnicity. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

6.3.1 Conclusion: affective commitment

This section provides strong support for hypothesis 6b, as each of the job resources was found to have a significant total indirect effect on affective commitment through connectedness. Challenging assignments and on-the-job learning exhibited the strongest total indirect effects with affective commitment. However, this analysis also highlights the importance of various forms of social support. Wider support for all three components of organisational connectedness was found when predicting affective commitment than compared to the determination to continue, highlighting the difference between these two outcome variables. Whilst value and, to a lesser extent, recipient connectedness were largely responsible for the magnitude of the indirect effect when predicting determination, the paths through other worker, value and recipient connectedness were significant in 8 out of ten of the relationships. In particular, this analysis highlights the importance of other worker connectedness in the relationship between job resources and affective commitment, indicating that a volunteer's emotional attachment to the Special Constabulary is indirectly related to the connectedness individuals feel with other people in the organisation.

6.4 Indirect effect of job resources on normative commitment

To address hypothesis 6c, identical analysis was conducted for the indirect effect of job resources on normative commitment through organisational connectedness. Once again the results are structured to discuss the total indirect effect sizes in descending order. Table 6.23 provides a summary of the results discussed in this section.

Table 6.23: Summary table of the total, direct and total indirect effect sizes

	c	**llci**	**ulci**	***c'***	**llci**	**ulci**	***axbx***	**llci**	**ulci**
On-the-job learning	0.602	0.268	0.937	0.155	-0.166	0.476	0.447	0.268	0.692
Challenging assignments	0.356	-0.042	0.754	-0.076	-0.436	0.285	0.431	0.178	0.701
Task significance	0.279	-0.040	0.598	-0.084	-0.370	0.202	0.363	0.169	0.613
Volunteer support	0.366	0.096	0.637	0.042	-0.208	0.292	0.324	0.154	0.528
Regular support	0.437	0.183	0.691	0.126	-0.131	0.384	0.311	0.130	0.519
Perceived organisational support	0.576	0.421	0.731	0.269	0.030	0.508	0.307	0.103	0.525
Feedback	0.413	0.223	0.603	0.114	-0.083	0.310	0.299	0.171	0.473
Supervisory support	0.254	0.044	0.464	0.016	-0.176	0.207	0.238	0.106	0.400
Family support	0.149	-0.189	0.486	-0.042	-0.332	0.248	0.191	0.012	0.387
Perceived access to training	0.280	0.148	0.413	0.103	-0.025	0.231	0.177	0.106	0.272

On-the-job learning

On-the-job learning had the largest total (*c*=0.602, 99%CI[0.268, 0.937]) and total indirect effect (a_xb_x=0.447, 99%CI[0.268, 0.692]) on normative commitment through connectedness. Furthermore the effect of on-the-job learning on normative commitment became non-significant once the indirect effect of connectedness was taken into account (*c'*=0.155, 99%CI[-0.166, 0.476]).

Table 6.24: Model coefficients: on-the-job learning and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (On-the-job learning)	a_1	0.662	0.102	<.001	0.396	0.928	***c***	0.602	0.129	<.001	0.268	0.937		--	--	--	--
	a_2	0.877	0.147	<.001	0.495	1.260	***c'***	0.155	0.124	.211	-0.166	0.476		--	--	--	--
	a_3	0.279	0.061	<.001	0.121	0.437							**Total**	0.447	0.082	0.268	0.692
M1		--	--	--	--	--	b_1	0.041	0.087	.637	-0.185	0.268	a_1b_1	0.027	0.068	-0.144	0.223
M2		--	--	--	--	--	b_2	0.377	0.059	<.001	0.224	0.531	a_2b_2	0.331	0.086	0.144	0.593
M3							b_3	0.320	0.119	.008	0.011	0.628	a_3b_3	0.089	0.036	0.016	0.218
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.304	0.134	-0.670	0.020
		--	--	--	--	--		--	--	--	--	--	C_2	-0.062	0.084	-0.288	0.164
$R^2_{4.5}$	14%	--	--	--	--	--		--	--	--	--	--	C_3	0.242	0.091	0.019	0.517

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The paths through value (a_2b_2=0.331, 99%CI[0.144, 0.593]) and recipient (a_3b_3=0.089, 99%CI[0.016, 0.218]) connectedness were significant however, the pairwise contrast

analysis was able to distinguish between the magnitudes of these two significant indirect effects (c_3=0.242, 99%CI[0.019, 0.517]). Therefore it can be concluded that the magnitude of the indirect effect of on-the-job learning on normative commitment is through value connectedness.

Challenging assignments

The provision of challenging assignments had a significant total effect on normative commitment however this relationship was only significant at the 95% level of confidence (c=0.356, 95%CI[0.054, 0.658]). The total indirect effect of challenging assignments on normative commitment was also significant at the 99% level of confidence (a_xb_x=0.431, 99%CI[0.178, 0.701]), with the paths through value and recipient connectedness responsible for this effect.

Table 6.25: Model coefficients: challenging assignments and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Challen-ging assig-nments)	a_1	0.646	0.121	<.001	0.333	0.960	c	0.356	0.153	.021	-0.042	0.754		--	--	--	--
	a_2	0.706	0.176	<.001	0.249	1.163	c'	-0.076	0.139	.588	-0.436	0.285		--	--	--	--
	a_3	0.319	0.071	<.001	0.136	0.502							**Total**	0.431	0.099	0.178	0.701
M1		--	--	--	--	--	b_1	0.067	0.088	.446	-0.160	0.294	a_1b_1	0.043	0.070	-0.137	0.261
M2		--	--	--	--	--	b_2	0.389	0.059	<.001	0.237	0.542	a_2b_2	0.275	0.082	0.085	0.515
M3							b_3	0.355	0.120	.003	0.045	0.665	a_3b_3	0.113	0.045	0.025	0.271
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.232	0.121	-0.593	0.049
		--	--	--	--	--		--	--	--	--	--	C_2	-0.070	0.090	-0.323	0.174
$R^2_{4.5}$	9%	--	--	--	--	--		--	--	--	--	--	C_3	0.162	0.093	-0.078	0.406

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Once again there was evidence of negative suppression (table 6.25). However, the magnitude of the total indirect effect relative to the non-significant direct effect supports the positive indirect effect of challenging assignments through connectedness.

Task significance

Task significance had a significant total indirect effect on normative commitment (a_xb_x=0.363, 99%CI[0.169, 0.613]) however, the total effect of task significance was only significant at the 95% level of confidence. Analysis of the direct effect indicated

negative suppression however, the direction and magnitude of the total indirect effect provides supports for the positive effect of task significance on normative commitment through connectedness. Whilst the specific indirect effects through value and recipient connectedness were significant, the pairwise contrast analysis indicated that the larger effect through value connectedness was distinguishable from recipient connectedness (table 6.26). Therefore whilst the relationship between task significance and normative commitment is not independent of connectedness, it is the value component that is responsible for the magnitude of this effect.

Table 6.26: Model coefficients: task significance and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Task significance)	a_1	0.430	0.099	<.001	0.174	0.686	c	0.279	0.123	.024	-0.040	0.598		--	--	--	--
	a_2	0.647	0.140	<.001	0.284	1.010	c'	-0.084	0.110	.446	-0.370	0.202		--	--	--	--
	a_3	0.226	0.057	<.001	0.078	0.374							**Total**	0.363	0.081	0.169	0.613
M1		--	--	--	--	--	b_1	0.063	0.086	.464	-0.161	0.288	a_1b_1	0.027	0.047	-0.092	0.185
M2		--	--	--	--	--	b_2	0.394	0.059	<.001	0.241	0.548	a_2b_2	0.255	0.068	0.114	0.488
M3							b_3	0.358	0.119	.003	0.049	0.667	a_3b_3	0.081	0.033	0.016	0.192
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.228	0.093	-0.573	-0.019
		--	--	--	--	--		--	--	--	--	--	C_2	-0.054	0.059	-0.243	0.097
$R^2_{4.5}$	8%	--	--	--	--	--		--	--	--	--	--	C_3	0.174	0.071	0.013	0.404

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=95%

Co-volunteer support

Social support from co-volunteers had the largest total indirect effect on normative commitment compared to the other three sources of social support addressed in this thesis (a_xb_x=0.324, 99%CI[0.154, 0.528]). Whilst the specific indirect effects through value and recipient connectedness were significant, the pairwise contrast analysis was able to distinguish between the magnitudes of these specific indirect effects. This indicates that whilst the effect of co-volunteer support on normative commitment was not independent of its effect through connectedness, the path through value connectedness was responsible for the magnitude of this relationship.

Table 6.27: Model coefficients: social support from co-volunteers and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.535	0.083	<.001	0.320	0.750	c	0.366	0.104	.001	0.096	0.637		--	--	--	--
(Volunteer	a_2	0.646	0.121	<.001	0.331	0.961	c'	0.042	0.096	.663	-0.208	0.292		--	--	--	--
support)	a_3	0.171	0.051	.001	0.040	0.303							**Total**	0.324	0.073	0.154	0.528
M1		--	--	--	--	--	b_1	-0.003	0.088	.973	-0.231	0.225	a_1b_1	-0.002	0.054	-0.155	0.145
M2		--	--	--	--	--	b_2	0.410	0.058	<.001	0.259	0.561	a_2b_2	0.265	0.067	0.117	0.473
M3							b_3	0.356	0.116	.002	0.056	0.656	a_3b_3	0.061	0.026	0.011	0.149
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.266	0.101	-0.584	-0.035
		--	--	--	--	--		--	--	--	--	--	c_2	-0.063	0.066	-0.252	0.105
$R^2_{4.5}$	10%	--	--	--	--	--		--	--	--	--	--	c_3	0.204	0.068	0.047	0.412

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Support from regular officers

Social support from regular officers had the largest total effect on normative commitment compared to the other sources of support, whilst its total indirect effect was only marginally less than that of co-volunteer support (a_xb_x=0.311, 99%CI[0.130, 0.519]).

Table 6.28: Model coefficients: social support from regular officers and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Regular	a_1	0.698	0.076	<.001	0.500	0.896	c	0.437	0.098	<.001	0.183	0.691		--	--	--	--
support)	a_2	0.804	0.116	<.001	0.502	1.106	c'	0.126	0.099	.205	-0.131	0.384		--	--	--	--
	a_3	0.104	0.050	.041	-0.027	0.234							**Total**	0.311	0.074	0.130	0.519
M1		--	--	--	--	--	b_1	-0.068	0.091	.451	-0.304	0.167	a_1b_1	-0.048	0.070	-0.248	0.134
M2		--	--	--	--	--	b_2	0.403	0.057	<.001	0.254	0.551	a_2b_2	0.324	0.070	0.171	0.535
M3							b_3	0.337	0.116	.004	0.037	0.638	a_3b_3	0.035	0.019	-0.004	0.107
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.371	0.120	-0.709	-0.082
		--	--	--	--	--		--	--	--	--	--	c_2	-0.083	0.076	-0.305	0.107
$R^2_{4.5}$	14%	--	--	--	--	--		--	--	--	--	--	c_3	0.289	0.070	0.140	0.499

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Only the specific indirect effect through value connectedness was significant at 99% confidence however, analysis at the 95% level of confidence revealed the smaller effect through recipient connectedness to be significant. Pairwise contrast analysis at the 95% level of confidence was able to distinguish between the magnitudes of these specific indirect effects. Therefore it can be concluded that whilst the effect of social support from regular officers on normative commitment is not independent of its

relationship through connectedness the path through value connectedness is responsible for the magnitude of this effect.

Perceived organisational support

Perceived organisational support had the second largest total effect on normative commitment. Despite a significant total indirect effect ($a_x b_x$=0.307, 99%CI[0.103, 0.525]), the direct effect of perceived organisational support on normative commitment remained significant. The specific indirect effects through value and recipient connectedness were significant (table 6.29) however, the magnitudes of these effects were distinguishable at the 95% level of confidence (c_3=0.204, 95%CI[0.017, 0.392]).

Table 6.29: Model coefficients: perceived organisational support and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (POS)	a_1	0.515	0.048	<.001	0.392	0.638	c	0.576	0.060	<.001	0.421	0.731		--	--	--	--
	a_2	1.021	0.051	<.001	0.888	1.154	c'	0.269	0.092	.004	0.030	0.508		--	--	--	--
	a_3	0.132	0.032	<.001	0.049	0.215							**Total**	0.307	0.084	0.103	0.525
M1		--	--	--	--	--	b_1	0.037	0.085	.669	-0.185	0.258	a_1b_1	0.019	0.054	-0.107	0.174
M2		--	--	--	--	--	b_2	0.241	0.077	.002	0.042	0.440	a_2b_2	0.246	0.095	0.000	0.494
M3							b_3	0.323	0.116	.006	0.022	0.624	a_3b_3	0.043	0.017	0.008	0.099
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.227	0.130	-0.549	0.121
		--	--	--	--	--		--	--	--	--	--	C_2	-0.024	0.060	-0.173	0.143
$R^2_{4.5}$	29%	--	--	--	--	--		--	--	--	--	--	C_3	0.204	0.095	-0.042	0.454

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The commonality analysis found the amount of variance in normative commitment explained by perceived organisational support and connectedness but attributable to neither alone was $R^2_{4.5}$=29%, highlighting the importance of this variable in predicting normative commitment. Therefore it can be concluded that whilst the effect of perceived organisational support on normative commitment is not independent of its effect through connectedness, the specific indirect effect through value connectedness is responsible for the magnitude of this effect.

Feedback

The provision of performance feedback had a significant total indirect effect ($a_x b_x$=0.299, 99%CI[0.171, 0.473]) through connectedness. The specific indirect effect

through value connectedness was significant at the 99% level of confidence, whilst recipient connectedness was significant at the 95% level (a_3b_3=0.025, 95%CI[0.005, 0.061]).

Table 6.30: Model coefficients: feedback and normative commitment

		Consequent													
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X	a_1	0.454	0.057	<.001	0.305	0.603	c	0.413	0.073	<.001	0.223	0.603	--	--	--	--
(Feedback)	a_2	0.718	0.079	<.001	0.512	0.923	c'	0.114	0.076	.135	-0.083	0.310	--	--	--	--
	a_3	0.072	0.036	.050	-0.023	0.166							**Total**	0.299	0.058	0.171	0.473
M1		--	--	--	--	--	b_1	0.034	0.088	.700	-0.194	0.261	a_1b_1	0.015	0.045	-0.100	0.138
M2		--	--	--	--	--	b_2	0.361	0.061	<.001	0.202	0.519	a_2b_2	0.259	0.067	0.107	0.459
M3							b_3	0.353	0.117	.003	0.048	0.657	a_3b_3	0.025	0.014	-0.001	0.073
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.243	0.099	-0.515	0.002
		--	--	--	--	--		--	--	--	--	--	c_2	-0.010	0.048	-0.138	0.121
$R^2_{4.5}$	16%	--	--	--	--	--		--	--	--	--	--	c_3	0.233	0.066	0.082	0.430

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

The pairwise contrast analysis was also able to distinguish between these two specific indirect effects (c_3=0.233, 95%CI[0.113, 0.337]). This indicates that whilst the effect of performance feedback on normative commitment is not independent of its effect through connectedness, value connectedness is responsible for the magnitude of this effect.

Supervisory support

Supervisory support had the weakest total effect on normative commitment compared to the other work-based forms of social support (table 6.31). Whilst the specific indirect effects through both value and recipient connectedness were significant, the specific indirect effect through value connectedness was responsible for the magnitude of the total indirect effect (a_xb_x=0.238, 99%CI[0.106, 0.400]), as indicated by the pairwise contrast analysis (table 6.31).

Table 6.31: Model coefficients: social support from supervisors and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Super-visory support)	a_1	0.392	0.066	<.001	0.221	0.562	c	0.254	0.081	.002	0.044	0.464		--	--	--	--
	a_2	0.510	0.095	<.001	0.264	0.755	c'	0.016	0.074	.834	-0.176	0.207		--	--	--	--
	a_3	0.093	0.040	.022	-0.011	0.197							**Total**	0.238	0.056	0.106	0.400
M1		--	--	--	--	--	b_1	-0.014	0.086	.869	-0.237	0.209	a_1b_1	-0.006	0.038	-0.120	0.092
M2		--	--	--	--	--	b_2	0.413	0.058	<.001	0.263	0.562	a_2b_2	0.211	0.055	0.091	0.388
M3							b_3	0.361	0.114	.002	0.065	0.656	a_3b_3	0.033	0.017	0.002	0.099
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.216	0.077	-0.460	-0.049
		--	--	--	--	--		--	--	--	--	--	c_2	-0.039	0.043	-0.166	0.066
$R^2_{4.5}$	9%	--	--	--	--	--		--	--	--	--	--	c_3	0.177	0.058	0.050	0.358

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Family support

Family support had the weakest total indirect effect compared to the other sources of social support (a_xb_x=0.191, 99%CI[0.012, 0.387]). The path through value connectedness was the only significant specific indirect effect, regardless of the level of significance testing. This suggests that whilst the effect of family support on normative commitment is not independent of its effect through connectedness, it is value connectedness that is responsible for this relationship

Table 6.32: Model coefficients: social support from the family and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Family support)	a_1	0.357	0.106	.001	0.082	0.631	c	0.149	0.130	.254	-0.189	0.486		--	--	--	--
	a_2	0.349	0.152	.023	-0.046	0.744	c'	-0.042	0.112	.707	-0.332	0.248		--	--	--	--
	a_3	0.093	0.062	.132	-0.067	0.253							**Total**	0.191	0.072	0.012	0.387
M1		--	--	--	--	--	b_1	0.072	0.087	.406	-0.154	0.298	a_1b_1	0.026	0.041	-0.081	0.152
M2		--	--	--	--	--	b_2	0.380	0.059	<.001	0.228	0.532	a_2b_2	0.133	0.063	0.009	0.338
M3							b_3	0.345	0.118	.004	0.040	0.651	a_3b_3	0.032	0.026	-0.023	0.136
Contrast		--	--	--	--	--		--	--	--	--	--	C_1	-0.107	0.083	-0.381	0.065
		--	--	--	--	--		--	--	--	--	--	C_2	-0.006	0.049	-0.160	0.122
$R^2_{4.5}$	8%	--	--	--	--	--		--	--	--	--	--	C_3	0.101	0.065	-0.035	0.298

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Perceived access to training

Perceived access to training had the weakest total indirect effect on normative commitment compared to other job resources (a_xb_x=0.177, 99%CI[0.106, 0.272]). The

specific indirect effect through value connectedness was significant at the 99% level of confidence (table 6.33), whilst additional testing revealed that recipient connectedness was significant at the 95% level (a_3b_3=0.018, 95% CI[0.003, 0.046]). Despite this, the pairwise contrast analysis was able to distinguish between these effects (c_3= 0.130, 95%CI[0.062, 0.214]). This suggests that whilst the effect of perceived access to training on normative commitment is not independent of its effect through connectedness, value connectedness is responsible for the magnitude of this effect.

Table 6.33: Model coefficients: perceived access to training and normative commitment

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Normative commitment (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X	a_1	0.215	0.042	<.001	0.105	0.324	c	0.280	0.051	<.001	0.148	0.413		--	--	--	--
(Perceived acces to training)	a_2	0.425	0.057	<.001	0.276	0.574	c'	0.103	0.049	.037	-0.025	0.231		--	--	--	--
	a_3	0.052	0.025	.039	-0.013	0.118							**Total**	0.177	0.032	0.106	0.272
M1		--	--	--	--	--	b_1	0.053	0.086	.541	-0.170	0.275	a_1b_1	0.011	0.023	-0.042	0.083
M2		--	--	--	--	--	b_2	0.349	0.061	<.001	0.190	0.507	a_2b_2	0.148	0.037	0.066	0.258
M3							b_3	0.340	0.117	.004	0.037	0.643	a_3b_3	0.018	0.010	0.000	0.052
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.137	0.053	-0.276	-0.001
		--	--	--	--	--		--	--	--	--	--	c_2	-0.007	0.026	-0.071	0.065
$R^2_{4.5}$	16%	--	--	--	--	--		--	--	--	--	--	c_3	0.130	0.038	0.042	0.237

Covariates: age, gender, rank, police staff. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

6.4.1 Conclusion: normative commitment

The results concerning the indirect effect of job resources on normative commitment provide strong support for hypothesis 6c, as the relationships between job resources and normative commitment were not independent of their effects through organisational connectedness. Once again, the largest of these total indirect effects was seen through the on-the-job learning and challenging assignments, whilst volunteer support, support from regular officers and perceived organisational support all shared similar indirect effect sizes. In general there was strong support for the indirect effects through value and recipient connectedness however, the stronger path through value connectedness was often distinguishable from that of recipient connectedness. Unexpectedly none of the paths through other worker connectedness were significant, perhaps pointing to the unique form of socialising often reported within

the police (e.g. Van Maanen, 1975; Reiner, 2010), which will be considered further in the discussion chapter.

6.5 Indirect effect of job resources on volunteer job satisfaction

The following section examines the indirect effect of job resources on volunteer job satisfaction, addressing hypothesis 6d. Once again the results are discussed in order of their indirect effect size. Table 6.34 summarises the total, direct and total indirect effects, indicating that each of the job resources has a significant total indirect effect on volunteer job satisfaction.

Table 6.34: Summary table of the total, direct and total indirect effect sizes

	c	llci	ulci	*c'*	llci	ulci	*axbx*	llci	ulci
Challenging assignments	0.585	0.357	0.814	0.313	0.106	0.521	0.272	0.132	0.434
On-the-job learning	0.663	0.475	0.850	0.405	0.225	0.585	0.257	0.149	0.389
Regular support	0.304	0.138	0.469	0.053	-0.110	0.216	0.251	0.137	0.385
Volunteer support	0.274	0.111	0.436	0.042	-0.106	0.190	0.232	0.135	0.360
Perceived organisational support	0.330	0.232	0.428	0.114	-0.028	0.257	0.215	0.082	0.364
Task significance	0.402	0.215	0.590	0.188	0.021	0.355	0.214	0.108	0.351
Feedback	0.233	0.114	0.352	0.031	-0.086	0.148	0.202	0.124	0.304
Supervisory support	0.183	0.053	0.312	0.013	-0.102	0.128	0.169	0.087	0.261
Family support	0.121	-0.087	0.330	-0.018	-0.191	0.155	0.140	0.020	0.277
Perceived access to training	0.140	0.057	0.223	0.029	-0.047	0.105	0.111	0.064	0.170

Level of significance = 99%. Co-variates: age, gender, rank, whether or not the individual was a member of police staff, future application to the regulars.

Challenging assignments

Challenging assignments had the largest total indirect effect of all job resources when predicting volunteer job satisfaction ($a_x b_x$=0.272, 99%CI[0.132, 0.434]). The specific indirect effects through other worker, value and recipient connectedness were each significant and their magnitudes could not be distinguished from each other. The commonality analysis found the amount of variance in satisfaction explained by challenging assignments and connectedness but attributable to neither alone was $R^2_{4.5}$=20%. These findings support the indirect relationship between challenging assignments and volunteer job satisfaction through connectedness.

Table 6.35: Model coefficients: challenging assignments and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Satisfaction (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Challenging assignments)	a_1	0.624	0.119	<.001	0.314	0.934	c	0.585	0.088	<.001	0.357	0.814		--	--	--	--
	a_2	0.685	0.176	<.001	0.230	1.140	c'	0.313	0.080	<.001	0.106	0.521		--	--	--	--
	a_3	0.317	0.071	<.001	0.134	0.501							**Total**	0.272	0.058	0.132	0.434
M1		--	--	--	--	--	b_1	0.171	0.051	.001	0.039	0.303	a_1b_1	0.106	0.043	0.016	0.243
M2		--	--	--	--	--	b_2	0.140	0.034	<.001	0.052	0.227	a_2b_2	0.096	0.035	0.027	0.211
M3							b_3	0.221	0.069	.002	0.043	0.400	a_3b_3	0.070	0.032	0.014	0.182
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.011	0.061	-0.153	0.171
		--	--	--	--	--		--	--	--	--	--	c_2	0.036	0.055	-0.111	0.196
$R^2_{4.5}$	20%	--	--	--	--	--		--	--	--	--	--	c_3	0.025	0.047	-0.099	0.150

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

On-the-job learning

On-the-job learning had a significant total indirect effect (a_xb_x=0.257, 99%CI[0.149, 0.359]) on satisfaction however, the direct effect remained significant after the effect of connectedness was accounted for (table 6.36). The specific indirect effects through other worker, value and recipient connectedness were significant, whilst the magnitude of their effects could not be distinguished. The amount of variance in satisfaction explained by on-the-job learning and connectedness but attributable to neither alone was $R^2_{4.5}$=25%, slightly higher than that of challenging assignments and highlighting the importance of on-the-job learning in predicting volunteer job satisfaction. Therefore the effect of on-the-job learning on volunteer job satisfaction is not independent of its effect through other worker, value and recipient connectedness.

Table 6.36: Model coefficients: on-the-job learning and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Satisfaction (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (On-the-job learning)	a_1	0.625	0.103	<.001	0.358	0.891	c	0.663	0.072	<.001	0.475	0.850		--	--	--	--
	a_2	0.847	0.149	<.001	0.461	1.233	c'	0.405	0.069	<.001	0.225	0.585		--	--	--	--
	a_3	0.279	0.062	<.001	0.119	0.440							**Total**	0.257	0.045	0.149	0.389
M1		--	--	--	--	--	b_1	0.161	0.049	.001	0.033	0.288	a_1b_1	0.100	0.040	0.013	0.224
M2		--	--	--	--	--	b_2	0.118	0.033	<.001	0.032	0.203	a_2b_2	0.100	0.035	0.017	0.204
M3							b_3	0.206	0.066	.002	0.034	0.378	a_3b_3	0.057	0.024	0.012	0.141
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.001	0.062	-0.163	0.178
		--	--	--	--	--		--	--	--	--	--	c_2	0.043	0.050	-0.083	0.186
$R^2_{4.5}$	25%	--	--	--	--	--		--	--	--	--	--	c_3	0.042	0.042	-0.064	0.154

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Support from regular officers

Social support from regular officers was found to have the largest total indirect effect on satisfaction compared to the other forms of social support (a_xb_x=0.251, 99%CI[0.137, 0.385]). The specific indirect effect through value connectedness was significant at the 99% level of confidence, whilst both other worker (a_1b_1=0.114, 95%CI [0.026, 0.216]) and recipient (a_3b_3=0.025, 95%CI[0.001, 0.061]) connectedness were significant at 95%. The pairwise contrast analysis was able to distinguish between the indirect effects through value and recipient connectedness (c_3=0.087, 95%CI[0.021, 0.169]) but not between other worker and value connectedness (c_1=0.002, 95%CI[-0.134, 0.140]). Therefore, both other worker and value connectedness are responsible for the magnitude of the significant total indirect effect between social support from regular officers and satisfaction.

Table 6.37: Model coefficients: social support from regular officers and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Regular support)	a_1	0.667	0.078	<.001	0.464	0.871	c	0.304	0.064	<.001	0.138	0.469		--	--	--	--
	a_2	0.781	0.120	<.001	0.470	1.093	c'	0.053	0.063	.399	-0.110	0.216		--	--	--	--
	a_3	0.096	0.052	.067	-0.039	0.231							**Total**	0.251	0.048	0.137	0.385
M1		--	--	--	--	--	b_1	0.170	0.057	.003	0.023	0.317	a_1b_1	0.114	0.049	-0.004	0.249
M2		--	--	--	--	--	b_2	0.143	0.036	<.001	0.051	0.236	a_2b_2	0.112	0.034	0.032	0.216
M3							b_3	0.263	0.072	<.001	0.076	0.450	a_3b_3	0.025	0.015	-0.005	0.074
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.002	0.070	-0.185	0.191
		--	--	--	--	--		--	--	--	--	--	c_2	0.088	0.052	-0.039	0.233
$R^2_{4.5}$	15%	--	--	--	--	--		--	--	--	--	--	c_3	0.087	0.036	-0.002	0.190

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Co-volunteer support

Co-volunteer support had a significant total indirect effect (a_xb_x=0.232, 99%CI[0.135, 0.360]) on satisfaction through connectedness, whilst the direct effect was non-significant once the effect of connectedness was accounted for (table 6.38). The effect of co-volunteer support on satisfaction was significant through each component of connectedness, whilst the pairwise contrast analysis could not distinguish between any of these effects.

Table 6.38: Model coefficients: social support from co-volunteers and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Satisfaction (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Co-volunteer support)	a_1	0.527	0.082	<.001	0.315	0.738	c	0.274	0.063	<.001	0.111	0.436		--	--	--	--
	a_2	0.637	0.121	<.001	0.324	0.950	c'	0.042	0.057	.463	-0.106	0.190		--	--	--	--
	a_3	0.170	0.051	.001	0.038	0.302							**Total**	0.232	0.043	0.135	0.360
M1		--	--	--	--	--	b_1	0.189	0.053	<.001	0.053	0.325	a_1b_1	0.100	0.036	0.020	0.216
M2		--	--	--	--	--	b_2	0.138	0.034	<.001	0.048	0.227	a_2b_2	0.088	0.029	0.026	0.184
M3							b_3	0.262	0.068	<.001	0.084	0.439	a_3b_3	0.045	0.018	0.010	0.104
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.012	0.052	-0.126	0.162
		--	--	--	--	--		--	--	--	--	--	c_2	0.055	0.041	-0.051	0.174
$R^2_{4.5}$	16%	--	--	--	--	--		--	--	--	--	--	c_3	0.043	0.033	-0.042	0.137

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Perceived organisational support

Perceived organisational support had a significant total indirect effect on volunteer job satisfaction through connectedness (a_xb_x=0.215, 99%CI[0.082, 0.364]). The specific indirect effects through other worker and value connectedness were significant however, the pairwise contrast analysis could not distinguish between these effects (table. 6.39). The commonality analysis found the amount of variance in satisfaction explained by perceived organisational support and connectedness but attributable to neither alone was $R^2_{4.5}$=30%. Therefore, it can be concluded that the effect of perceived organisational support on volunteer job satisfaction is not independent of its effect through other worker and recipient connectedness.

Table 6.39: Model coefficients: perceived organisational support and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)						Satisfaction (Y)						Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (POS)	a_1	0.503	0.047	<.001	0.380	0.625	c	0.330	0.038	<.001	0.232	0.428		--	--	--	--
	a_2	1.014	0.051	<.001	0.881	1.148	c'	0.114	0.055	.038	-0.028	0.257		--	--	--	--
	a_3	0.131	0.032	<.001	0.048	0.214							**Total**	0.215	0.053	0.082	0.364
M1		--	--	--	--	--	b_1	0.193	0.051	<.001	0.060	0.327	a_1b_1	0.097	0.031	0.024	0.191
M2		--	--	--	--	--	b_2	0.083	0.046	.071	-0.036	0.202	a_2b_2	0.084	0.053	-0.063	0.213
M3							b_3	0.261	0.069	<.001	0.081	0.440	a_3b_3	0.034	0.013	0.008	0.079
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.013	0.071	-0.161	0.200
		--	--	--	--	--		--	--	--	--	--	c_2	0.063	0.035	-0.029	0.159
$R^2_{4.5}$	30%	--	--	--	--	--		--	--	--	--	--	c_3	0.050	0.055	-0.098	0.180

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. POS = Perceived organisational support. CI=99%

Task significance

Task significance had a significant total indirect effect on volunteer job satisfaction (a_xb_x=0.214, 95%CI[0.108, 0.351]) however, its direct effect remained significant (c'=0.188, 99%CI[0.021, 0.355]) once the effect of connectedness was accounted for. Other worker, value and recipient connectedness each had significant specific indirect effects on satisfaction (table 6.40), and the pairwise contrast analysis was unable to distinguish between the magnitudes of these effects. This indicates that the effect of task significant on satisfaction is not independent of its effect through other worker, value and recipient connectedness.

Table 6.40: Model coefficients: task significance and satisfaction

		Consequent													
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Task significance)	a_1	0.408	0.098	<.001	.15	.66	c	0.402	0.072	<.001	0.215	0.590		--	--	--	--
	a_2	0.627	0.140	<.001	.26	.99	c'	0.188	0.064	.004	0.021	0.355		--	--	--	--
	a_3	0.225	0.057	<.001	.08	.37							**Total**	0.214	0.047	0.108	0.351
M1		--	--	--	--	--	b_1	0.194	0.051	<.001	0.062	0.326	a_1b_1	0.079	0.032	0.015	0.183
M2		--	--	--	--	--	b_2	0.131	0.035	<.001	0.042	0.221	a_2b_2	0.082	0.031	0.020	0.190
M3							b_3	0.237	0.069	.001	0.056	0.417	a_3b_3	0.053	0.022	0.013	0.136
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.003	0.049	-0.138	0.129
		--	--	--	--	--		--	--	--	--	--	c_2	0.026	0.039	-0.077	0.131
$R^2_{4.5}$	18%	--	--	--	--	--		--	--	--	--	--	c_3	0.029	0.036	-0.061	0.134

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Feedback

The provision of performance feedback had a significant total indirect effect on satisfaction (a_xb_x=0.202, 99%CI[0.124, 0.304]), whilst the direct effect was non-significant once the effect of connectedness had been taken into account (table 6.41). The specific indirect effect through other worker and value connectedness was significant at the 99% level of confidence, whilst additional analysis at 95% reveal the path through recipient connectedness to also be significant (a_3b_3=0.019, 95%CI[0.003, 0.046]). The pairwise contrast analysis was able to distinguish between other worker and recipient (c_2=0.067, 95%CI[0.007, 0.133]), and value and recipient (c_3=0.078, 95%CI[0.021, 0.147]) connectedness. This indicates that the effect of performance

feedback on satisfaction is not independent of its effect through other worker and value connectedness.

Table 6.41: Model coefficients: feedback and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Feed-back)	a_1	0.435	0.057	<.001	.29	.58	c	0.233	0.046	<.001	0.114	0.352		--	--	--	--
	a_2	0.705	0.080	<.001	.50	.91	c'	0.031	0.045	.486	-0.086	0.148		--	--	--	--
	a_3	0.070	0.037	.060	-.03	.17							**Total**	0.202	0.035	0.124	0.304
M1		--	--	--	--	--	b_1	0.197	0.053	<.001	0.060	0.333	a_1b_1	0.086	0.029	0.018	0.170
M2		--	--	--	--	--	b_2	0.138	0.036	<.001	0.044	0.232	a_2b_2	0.097	0.030	0.025	0.184
M3							b_3	0.272	0.070	<.001	0.091	0.453	a_3b_3	0.019	0.011	-0.003	0.056
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.012	0.049	-0.140	0.113
		--	--	--	--	--		--	--	--	--	--	c_2	0.067	0.032	-0.017	0.153
$R^2_{4.5}$	16%	--	--	--	--	--		--	--	--	--	--	c_3	0.078	0.031	0.000	0.166

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Social support from supervisors

Social support from supervisors had the weakest significant total indirect on satisfaction compared to the other work-based forms of social support (a_xb_x=0.169, 99%CI[0.087, 0.261]). The specific indirect effect through each component of connectedness was found to be significant at the 99% level of confidence, whilst the pairwise contrast analysis was unable to distinguish between the magnitudes of their effects (table 6.42). Therefore it can be concluded that the effect of supervisory support on volunteer job satisfaction is not independent of its effect through other worker, value and recipient connectedness.

Table 6.42: Model coefficients: social support from supervisors and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Super-visory support)	a_1	0.382	0.065	<.001	0.214	0.551	c	0.183	0.050	<.001	0.053	0.312		--	--	--	--
	a_2	0.500	0.094	<.001	0.256	0.745	c'	0.013	0.044	.768	-0.102	0.128		--	--	--	--
	a_3	0.092	0.040	.023	-0.013	0.196							**Total**	0.169	0.034	0.087	0.261
M1		--	--	--	--	--	b_1	0.202	0.052	<.001	0.067	0.337	a_1b_1	0.077	0.026	0.021	0.156
M2		--	--	--	--	--	b_2	0.134	0.035	<.001	0.044	0.224	a_2b_2	0.067	0.025	0.014	0.144
M3							b_3	0.271	0.069	<.001	0.093	0.449	a_3b_3	0.025	0.013	0.001	0.072
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.010	0.040	-0.092	0.115
		--	--	--	--	--		--	--	--	--	--	c_2	0.053	0.030	-0.024	0.134
$R^2_{4.5}$	15%	--	--	--	--	--		--	--	--	--	--	c_3	0.042	0.027	-0.025	0.123

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Family support

Social support from the family had the weakest total (*c*=0.121, 99%CI [-0.087, 0.330]) and total indirect effect (a_xb_x=0.140, 99%CI[0.020, 0.277]) on volunteer job satisfaction compared to all other forms of social support. The specific indirect effect through other worker connectedness was significant at the 99% level of confidence (table 6.43), whilst value connectedness was also significant at the 95% (a_2b_2=0.047, 95%CI[0.008, 0.117]). As the pairwise contrast analysis was unable to distinguish between the magnitudes of these indirect effects it can be concluded that the relationship between family support and volunteer job satisfaction is not independent of both other worker and value connectedness.

Table 6.43: Model coefficients: social support from the family and satisfaction

		Consequent														
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect				
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI		Coeff.	*SE*	*p*	LLCI	ULCI		*ab*	*SE*	LLCI	ULCI
X (Family support)	a_1	0.331	0.105	.002	0.060	0.603	c	0.121	0.080	.132	-0.087	0.330		--	--	--	--
	a_2	0.324	0.152	.034	-0.070	0.718	c'	-0.018	0.067	.786	-0.191	0.155		--	--	--	--
	a_3	0.090	0.062	.146	-0.070	0.251							**Total**	0.140	0.050	0.020	0.277
M1		--	--	--	--	--	b_1	0.207	0.052	.000	0.071	0.343	a_1b_1	0.069	0.032	0.010	0.167
M2		--	--	--	--	--	b_2	0.144	0.035	.000	0.053	0.235	a_2b_2	0.047	0.026	-0.002	0.144
M3							b_3	0.269	0.070	.000	0.086	0.451	a_3b_3	0.024	0.022	-0.017	0.102
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	0.022	0.041	-0.087	0.129
		--	--	--	--	--		--	--	--	--	--	c_2	0.044	0.036	-0.043	0.146
$R^2_{4.5}$	11%	--	--	--	--	--		--	--	--	--	--	c_3	0.022	0.031	-0.059	0.120

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

Perceived access to training

Perceived access to training had the weakest total indirect effect on satisfaction compared to all other job resources (a_xb_x=0.111, 99%CI[0.064, 0.170]). The specific indirect effects through other worker and value connectedness were significant at the 99% level of confidence, whilst additional analysis at the 95% level confirmed the significance of the path through recipient connectedness (a_3b_3=0.014, 95% CI[0.003, 0.032]) at the 95% level of confidence. Therefore the effect of training on volunteer job satisfaction is not independent of its effect through other worker, value and recipient connectedness.

Table 6.44: Model coefficients: social support from co-volunteers and satisfaction

		Consequent													
		Other workers (M1), value (M2), recipient connectedness (M3)					Satisfaction (Y)					Indirect effect			
Antecedent		Coeff.	*SE*	*p*	LLCI	ULCI	Coeff.	*SE*	*p*	LLCI	ULCI	*ab*	*SE*	LLCI	ULCI
X	a_1	0.204	0.042	<.001	0.095	0.312	c	0.140	0.032	<.001	0.057	0.223	--	--	--	--
(Perceived acces to training)	a_2	0.416	0.057	<.001	0.267	0.565	c'	0.029	0.029	.325	-0.047	0.105	--	--	--	--
	a_3	0.051	0.025	.045	-0.015	0.117							**Total**	0.111	0.020	0.064	0.170
M1		--	--	--	--	--	b_1	0.202	0.052	<.001	0.068	0.335	a_1b_1	0.041	0.016	0.008	0.091
M2		--	--	--	--	--	b_2	0.135	0.036	<.001	0.040	0.229	a_2b_2	0.056	0.018	0.013	0.106
M3							b_3	0.268	0.070	<.001	0.088	0.449	a_3b_3	0.014	0.007	-0.001	0.039
Contrast		--	--	--	--	--		--	--	--	--	--	c_1	-0.015	0.028	-0.082	0.060
		--	--	--	--	--		--	--	--	--	--	c_2	0.027	0.017	-0.015	0.077
$R^2_{4.5}$	16%	--	--	--	--	--		--	--	--	--	--	c_3	0.042	0.020	-0.009	0.094

Covariates: age, gender, rank, police staff, future application to the regulars. C_1 - other worker minus value, C_2 = other worker minus recipient, C_3 = value minus recipient. CI=99%

6.5.1 Conclusion: volunteer job satisfaction

These findings provide strong support for the hypothesis 6d, as each of the job resources in this study was found to have a significant indirect effect on volunteer job satisfaction through organisational connectedness. Challenging assignments and on-the-job learning had the strongest indirect effects through connectedness, whilst social support from regulars and co-volunteers had the largest total and total indirect effect on satisfaction compared to other sources of social support. The specific indirect effects through other worker, value and recipient connectedness were significant in eight out of ten of the path models indicating the importance of each of the connectedness components when predicting satisfaction.

6.6 Relative weight analysis

The relative weight analysis was repeated to examine the proportion of total variance explained by each of the job resources within the criterion variables. Table 6.45 displays a selected output from the RWA analysis including the raw relative weight (RRW) and the weight as a per cent of the total variance (R^2). As was found in Chapter 5 job resources explained the least amount of variance within determination to continue (15% to 17%) however, this time the total amount of variance explained within affective commitment and volunteer job satisfaction was broadly similar.

Table 6.45: RWA analysis

	Challenging assignments	On-the-job learning	Task significance	Perceived access to training	Feedback	Perceived org support	Supervisory support	Co-volunteer support	Regular officer support	Family support
Determination to continue										
R^2	17	17	15	15	15	16	16	16	15	15
RRW	0.04	0.04	0.01	0.01	0.01	0.05	0.00	0.00	0.01	0.00
RRW as % of R^2	21.6	22.7	3.4	9.3	7.9	32.2	1.6	1.9	5.5	0.6
Affective commitment										
R^2	45	45	45	45	45	45	45	45	45	45
RRW	0.01	0.02	0.01	0.01	0.05	0.08	0.02	0.01	0.06	0.01
RRW as % of R^2	2	3.3	1.6	3.1	10	17.8	3.4	2.5	12.1	1.3
Normative commitment										
R^2	36	36	36	37	37	38	36	36	36	36
RRW	0.01	0.03	0.01	0.05	0.05	0.11	0.01	0.01	0.03	0.00
RRW as % of R^2	1.4	8.3	1.3	14.5	12.9	30.1	2.6	3.2	7.5	0.5
Volunteer job satisfaction										
R^2	47	50	45	44	44	45	44	44	44	44
RRW	0.08	0.14	0.05	0.03	0.04	0.09	0.01	0.02	0.04	0.00
RRW as % of R^2	16.2	28	10.4	31.4	9.7	21.1	2.9	4.8	8.5	0.9

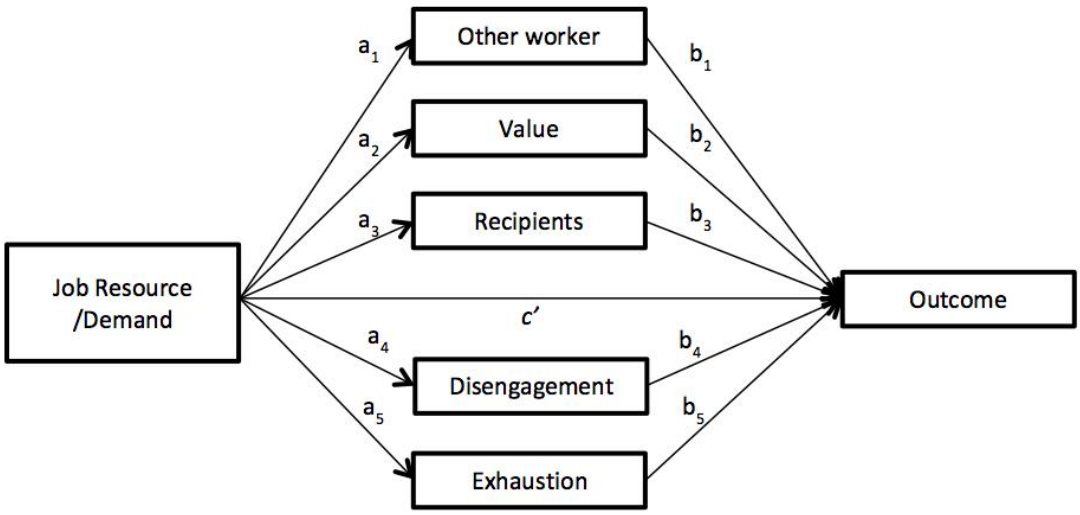
Whilst perceived organisational support explained the greatest proportion of total variance in three of the four criterion variables, the figures presented in table 6.45 also demonstrate the differential relationship between the other job resources and the criterion variables. Within the determination to continue, perceived organisational support (32.2%), on-the-job learning (22.7%) and challenging assignment (21.6%) explained substantially more variance than the other job resources. Despite explaining more overall variance, job resources generally accounted for a lower proportion of this when assessing commitment. Perceived organisational support (17.8%) explained the greatest proportion of variance within affective commitment, followed by regular officer support (12.1%) and feedback (10%). This highlights the important relationship between social support provided by regular officers and the level of emotional attachment to the organisation felt by volunteers. Furthermore, it suggests that providing volunteers with information about their performance helps foster stronger emotional ties with the Special Constabulary. In relation to normative commitment, perceived organisational support (30.1%), perceived access to training (14.5%) and feedback (12.9%) were found to explain substantially more variance than the other job resources. Although social support from regular officers explained 7.5% of the variance

within normative commitment, it is perhaps surprising that the other social support variables did not explain more criterion variance. The findings concerning volunteer job satisfaction indicate that perceived access to training (31.4%), on-the-job learning (28%), perceived organisational support (21.1%) and the provision of challenging assignment (16.2%) each explained substantially more variance than the other job resources. This clearly indicates the importance of learning and development within the Special Constabulary as well as highlighting the important role played by job challenge.

6.7 Distinctiveness of the motivational and health impairment processes

Having confirmed the health impairment (Chapter 5) and motivational processes (this chapter) of the JD-R model, this section of the thesis investigates whether these processes are distinctive by examining the indirect effects of job demands and resources through both burnout and connectedness simultaneously (figure 6.2). The following section provides a summary of these results, which are discussed by outcome measure. Significance testing is conducted at the 95% level of confidence. Only when evidence of a significant specific/total indirect is found are results reported and discussed. To remain consistent with the dual-processes analysis, the same covariates have been used for each outcome.

Figure 6.2: Indirect path model: cross-processes model



6.7.1 Determination to continue

There was evidence to support the negative effect of job demands on the determination to continue through reduced levels of connectedness, supporting hypothesis 7a. V-FC, poor working relationships with regular officers and role ambiguity all had a significant negative specific indirect effect on the determination to continue through value connectedness (table 6.46). The specific indirect effects through disengagement also remained significant.

Role ambiguity had the largest total indirect effect on determination (a_xb_x=-0.321, 95%CI[-0.510, -0.150]), with the specific indirect effects through value connectedness (a_2b_2=-0.155, 95%CI[-0.325, -0.003]) and disengagement significant (a_4b_4=-0.212, 95%CI[-0.366, -0.084]). Whilst the significant specific indirect effect through disengagement was expected, the direction of the specific indirect effect through value connectedness indicates the overall negative influence of role ambiguity on determination through lowered value connectedness. This pattern of results was consistent for both V-FC and working relations with regular officers[13], linking job demands to determination to continue through lower levels of value connectedness.

Table 6.46: Model coefficients: job demands and determination

	V-FC			W-VC			V-WC			Poor working relationships with regs			Role ambiguity		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCU	ULCI
c	-0.188	-0.318	-0.058	-0.149	-0.278	-0.020	0.028	-0.143	0.198	-0.241	-0.424	-0.058	-0.493	-0.687	-0.300
c'	-0.061	-0.194	0.072	-0.057	-0.180	0.067	0.117	-0.049	0.284	0.030	-0.175	0.234	-0.172	-0.407	0.062
a_xb_x	-0.127	-0.229	-0.041	-0.093	-0.169	-0.035	-0.090	-0.203	0.007	-0.271	-0.422	-0.136	-0.321	-0.510	-0.150
Other worker	0.009	-0.037	0.055	0.007	-0.006	0.048	0.012	-0.010	0.064	0.020	-0.130	0.154	0.062	-0.109	0.224
Value	-0.057	-0.129	-0.012	-0.014	-0.056	0.005	-0.014	-0.069	0.010	-0.129	-0.247	-0.031	-0.155	-0.325	-0.003
Recipient	-0.004	-0.031	0.004	-0.007	-0.036	0.011	-0.009	-0.047	0.008	-0.011	-0.052	0.008	-0.024	-0.091	0.027
Disengagement	-0.101	-0.196	-0.039	-0.090	-0.170	-0.038	-0.105	-0.221	-0.034	-0.161	-0.287	-0.064	-0.212	-0.366	-0.084
Exhaustion	0.026	-0.027	0.090	0.011	-0.004	0.049	0.027	-0.038	0.096	0.011	-0.012	0.064	0.009	-0.012	0.059

Job resources also had a positive influence on the determination to continue through reduced levels of burnout (disengagement) providing support for hypothesis 8a. In addition to the expected significant paths through connectedness[14], the path through

[13] No evidence of cross-processes was found when examining the indirect effects of W-VC or V-WC.
[14] With the exception of perceived organisational support.

disengagement was also significant in each of the models (table 6.47). The direction of the specific indirect effect through disengagement indicates the positive impact that each job resource has on the determination to continue through disengagement. In general, the size of the specific indirect effect through disengagement was considerably greater for challenging assignments (a_4b_4=0.314, 95%CI[0.118, 0.572]), on-the-job learning (a_4b_4=0.398, 95%CI[0.152, 0.687]), perceived organisational support (a_4b_4=0.194, 95%CI[0.081, 0.340]) and family support (a_4b_4=0.229, 95%CI[0.074, 0.421]), than compared to the other job resources.

Table 6.47: Model coefficients: job resources and determination

	Perceived access to training			Task significance			Feedback			Perceived org support			Supervisory support		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.192	0.056	0.328	0.357	0.039	0.675	0.284	0.090	0.479	0.488	0.321	0.655	0.134	-0.083	0.352
c'	-0.001	-0.141	0.139	-0.010	-0.324	0.305	-0.018	-0.231	0.195	0.203	-0.060	0.465	-0.129	-0.343	0.085
a_xb_x	0.192	0.113	0.288	0.367	0.192	0.587	0.302	0.167	0.465	0.285	0.071	0.497	0.263	0.144	0.409
Other worker	-0.012	-0.071	0.052	-0.023	-0.154	0.096	-0.023	-0.147	0.111	-0.033	-0.158	0.113	-0.003	-0.111	0.105
Value	0.097	0.020	0.190	0.144	0.029	0.305	0.168	0.032	0.321	0.117	-0.107	0.346	0.123	0.031	0.254
Recipient	0.009	-0.007	0.037	0.036	-0.038	0.130	0.012	-0.009	0.054	0.020	-0.022	0.075	0.019	-0.008	0.071
Disengagement	0.101	0.038	0.198	0.200	0.065	0.406	0.156	0.066	0.279	0.194	0.081	0.340	0.133	0.050	0.260
Exhaustion	-0.003	-0.033	0.006	0.009	-0.012	0.085	-0.011	-0.067	0.012	-0.012	-0.068	0.012	-0.009	-0.064	0.011

	Volunteer support			Family support			Regular officers support			On-the-job learning			Challenging assignments		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.176	-0.101	0.452	0.083	-0.254	0.420	0.325	0.051	0.598	0.781	0.452	1.111	0.847	0.462	1.231
c'	-0.191	-0.469	0.086	-0.143	-0.458	0.173	-0.093	-0.398	0.212	0.206	-0.161	0.574	0.395	-0.001	0.791
a_xb_x	0.367	0.221	0.546	0.225	0.070	0.404	0.418	0.230	0.617	0.575	0.363	0.832	0.452	0.251	0.694
Other worker	0.005	-0.154	0.167	-0.011	-0.125	0.095	-0.016	-0.219	0.204	-0.041	-0.230	0.128	-0.060	-0.267	0.116
Value	0.137	0.023	0.297	0.076	0.012	0.210	0.193	0.050	0.381	0.195	0.043	0.397	0.161	0.040	0.350
Recipient	0.024	-0.027	0.103	0.015	-0.011	0.093	0.016	-0.016	0.080	0.040	-0.046	0.159	0.037	-0.056	0.178
Disengagement	0.210	0.097	0.382	0.144	0.041	0.314	0.229	0.074	0.421	0.398	0.152	0.687	0.314	0.118	0.572
Exhaustion	-0.008	-0.068	0.010	0.001	-0.028	0.043	-0.004	-0.063	0.036	-0.017	-0.107	0.024	-0.001	-0.058	0.027

6.7.2 Affective commitment

There was evidence that job demands had an indirect effect on affective commitment through other worker and value connectedness, but not through recipient connectedness. As indicated by table 6.48 role ambiguity had the largest total indirect effect on affective commitment (a_xb_x=-0.447, 95%CI[-0.594, -0.375]), followed by poor working relations with regular officers (a_xb_x=-0.307, 95%CI[-0.399, -0.229]) and V-FC (a_xb_x=-0.131, 95% CI[0.197, -0.072])[15]. In each of these examples, in addition to the

[15] No evidence of cross-processes was found when examining the indirect effects of W-VC or V-WC.

expected effect through disengagement, the specific indirect effects through other worker and value connectedness were significant. The size and direction of these coefficients indicate the negative indirect effect of each job demand on affective commitment through connectedness. These findings provide clear evidence of the detrimental effect of job demands through reduced levels of other worker and value connectedness providing support for hypothesis 7b.

Table 6.48: Model coefficients: job demands and affective commitment

	V-FC			W-VC			V-WC			Poor working relationships with regs			Role ambiguity		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCU	ULCI
c	-0.168	-0.250	-0.087	-0.126	-0.207	-0.044	-0.131	-0.239	-0.023	-0.338	-0.449	-0.227	-0.314	-0.439	-0.189
c'	-0.038	-0.110	0.035	-0.076	-0.143	-0.009	-0.069	-0.160	0.022	-0.031	-0.143	0.080	0.153	0.027	0.279
$a_x b_x$	-0.131	-0.197	-0.072	-0.050	-0.106	0.004	-0.062	-0.148	0.025	-0.307	-0.399	-0.229	-0.467	-0.594	-0.375
Other worker	-0.045	-0.086	-0.017	-0.013	-0.044	0.009	-0.025	-0.071	0.003	-0.128	-0.230	-0.043	-0.173	-0.269	-0.091
Value	-0.056	-0.111	-0.021	-0.014	-0.047	0.010	-0.016	-0.066	0.015	-0.118	-0.203	-0.055	-0.187	-0.282	-0.105
Recipient	-0.004	-0.021	0.002	-0.004	-0.020	0.007	-0.004	-0.028	0.006	-0.012	-0.039	0.001	-0.028	-0.071	0.002
Disengagement	-0.033	-0.069	-0.006	-0.022	-0.051	-0.002	-0.028	-0.073	-0.002	-0.050	-0.101	-0.014	-0.082	-0.141	-0.032
Exhaustion	0.007	-0.017	0.036	0.002	-0.007	0.018	0.011	-0.024	0.046	0.002	-0.010	0.024	0.003	-0.010	0.027

In addition to the indirect effect of job demands on affective commitment through connectedness, there was also strong support for the indirect effect of job resources on affective commitment through the disengagement component of burnout. As indicated in table 6.49, the specific indirect effect through disengagement was significant in each of the path models. In general the size of the specific indirect effect through disengagement was similar in proportion across all of the job resources. There were exceptions to this, with the effects of on-the-job learning (a_4b_4=0.183, 95%CI[0.073, 0.317]) and challenging assignments (a_4b_4=0.125, 95%CI[0.051, 0.236]) through reduced disengagement considerably greater than the other job resources. This indicates the positive impact of these variables on affective commitment through reduced burnout, providing support for hypothesis 8b.

Table 6.49: Model coefficients: job resources and affective commitment

	Perceived access to training			Task significance			Feedback			Perceived org support			Supervisory support		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.123	0.036	0.210	0.249	0.044	0.453	0.350	0.231	0.470	0.437	0.336	0.538	0.270	0.132	0.407
c'	-0.083	-0.159	-0.007	-0.089	-0.260	0.083	0.040	-0.075	0.155	0.018	-0.126	0.161	0.009	-0.109	0.127
$a_x b_x$	0.206	0.147	0.276	0.337	0.191	0.504	0.310	0.221	0.405	0.420	0.281	0.554	0.261	0.173	0.361
Other worker	0.057	0.027	0.104	0.103	0.036	0.209	0.109	0.050	0.187	0.130	0.061	0.207	0.102	0.045	0.183
Value	0.104	0.058	0.168	0.132	0.062	0.252	0.145	0.062	0.262	0.208	0.058	0.348	0.105	0.045	0.200
Recipient	0.009	-0.001	0.028	0.037	-0.001	0.104	0.011	-0.001	0.037	0.020	-0.003	0.051	0.013	-0.002	0.047
Disengagement	0.037	0.013	0.072	0.062	0.015	0.144	0.048	0.012	0.099	0.064	0.019	0.121	0.044	0.011	0.101
Exhaustion	-0.001	-0.015	0.003	0.003	-0.009	0.040	-0.003	-0.023	0.012	-0.003	-0.026	0.012	-0.003	-0.031	0.007

	Volunteer support			Family support			Regular officers support			On-the-job learning			Challenging assignments		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.286	0.109	0.463	0.202	-0.011	0.415	0.527	0.361	0.693	0.366	0.151	0.581	0.317	0.066	0.568
c'	-0.080	-0.231	0.072	-0.006	-0.177	0.165	0.113	-0.048	0.273	-0.220	-0.417	-0.023	-0.175	-0.389	0.040
$a_x b_x$	0.365	0.242	0.504	0.208	0.087	0.361	0.414	0.306	0.530	0.586	0.428	0.768	0.492	0.331	0.668
Other worker	0.143	0.062	0.261	0.088	0.030	0.178	0.181	0.085	0.296	0.168	0.082	0.287	0.170	0.082	0.301
Value	0.134	0.057	0.253	0.065	0.011	0.158	0.161	0.064	0.296	0.194	0.088	0.342	0.142	0.053	0.284
Recipient	0.028	-0.001	0.077	0.014	-0.003	0.069	0.011	-0.006	0.047	0.047	-0.001	0.112	0.055	0.003	0.130
Disengagement	0.062	0.011	0.139	0.042	0.006	0.112	0.066	0.003	0.138	0.183	0.073	0.317	0.125	0.051	0.236
Exhaustion	-0.002	-0.031	0.011	0.000	-0.013	0.016	-0.005	-0.035	0.011	-0.005	-0.046	0.014	-0.001	-0.033	0.012

6.7.3 Normative commitment

Supporting hypothesis 7c, job demands were found to have a significant indirect effect on normative commitment through reduced connectedness (table 6.50). The largest total indirect effects were found when conflict with regular officers and role ambiguity were used to predict normative commitment. In both these examples the specific indirect effects through reduced value and recipient connectedness were significant, with the path through value connectedness greater than that of the path through recipient connectedness. The indirect effect through connectedness was also significant when V-FC was used to predict normative commitment however, in this instance only the path through the value component was significant[16]. These findings provide clear support for the de-motivating nature of job demands on normative commitment through reduced connectedness.

[16] No evidence of cross-processes was found when examining the indirect effects of W-VC or V-WC.

Table 6.50: Model coefficients: job demands and normative commitment

	V-FC			W-VC			V-WC			Poor working relationships with regs			Role ambiguity		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCU	ULCI
c	-0.163	-0.263	-0.063	-0.070	-0.174	0.033	-0.009	-0.143	0.126	-0.218	-0.357	-0.079	-0.415	-0.563	-0.267
c'	-0.043	-0.135	0.050	-0.011	-0.097	0.076	0.070	-0.045	0.186	0.103	-0.038	0.244	0.013	-0.150	0.175
a_xb_x	-0.120	-0.199	-0.050	-0.059	-0.126	0.009	-0.079	-0.190	0.025	-0.321	-0.439	-0.213	-0.428	-0.578	-0.295
Other worker	0.000	-0.037	0.040	-0.002	-0.026	0.008	-0.004	-0.038	0.020	-0.032	-0.145	0.088	-0.005	-0.136	0.115
Value	-0.091	-0.164	-0.043	-0.015	-0.069	0.024	-0.032	-0.100	0.019	-0.198	-0.302	-0.118	-0.276	-0.417	-0.150
Recipient	-0.007	-0.029	0.003	-0.013	-0.037	0.000	-0.016	-0.048	0.000	-0.016	-0.049	-0.001	-0.040	-0.086	-0.004
Disengagement	-0.055	-0.105	-0.020	-0.042	-0.090	-0.012	-0.057	-0.126	-0.017	-0.090	-0.159	-0.039	-0.123	-0.217	-0.050
Exhaustion	0.032	-0.003	0.079	0.012	-0.001	0.043	0.030	-0.016	0.087	0.015	-0.002	0.056	0.017	-0.001	0.060

In support of hypothesis 8c, there was also evidence that job resources had a positive influence on levels of normative commitment through a reduction in disengagement. In each of the 10 models, the path through disengagement was significant (table 6.51). Once again, the proportion of the indirect effect through disengagement was broadly similar across the job resources with the exception of on-the-job learning (a_4b_4=0.236, 95%CI[0.072, 0.419]), the provision of challenging assignments (a_4b_4=0.212, 95%CI[0.089, 0.391]) and social support from the family (a_4b_4=0.083, 95%CI[0.022, 0.185]). In these examples the path through disengagement was considerably larger in relation to the total indirect effect when compared to the other job resources. This further highlights the importance of job challenge as well as social support from the family in enhancing levels of normative commitment.

Table 6.51: Model coefficients: job resources and normative commitment

	Perceived access to training			Task significance			Feedback			Perceived org support			Supervisory support		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.280	0.180	0.381	0.279	0.037	0.521	0.413	0.269	0.557	0.576	0.459	0.694	0.254	0.095	0.413
c'	0.085	-0.011	0.180	-0.149	-0.365	0.067	0.108	-0.039	0.254	0.248	0.070	0.427	0.003	-0.142	0.147
a_xb_x	0.196	0.133	0.271	0.428	0.257	0.638	0.305	0.196	0.435	0.328	0.163	0.494	0.251	0.147	0.376
Other worker	0.001	-0.042	0.046	0.006	-0.088	0.097	-0.008	-0.101	0.081	-0.005	-0.107	0.099	-0.019	-0.101	0.056
Value	0.136	0.072	0.218	0.232	0.124	0.393	0.232	0.115	0.377	0.220	0.041	0.408	0.197	0.108	0.316
Recipient	0.013	0.002	0.036	0.059	0.011	0.142	0.018	0.002	0.050	0.030	0.003	0.070	0.026	0.004	0.069
Disengagement	0.052	0.018	0.106	0.119	0.037	0.249	0.081	0.032	0.154	0.102	0.037	0.183	0.057	0.014	0.126
Exhaustion	-0.005	-0.029	0.004	0.014	-0.010	0.077	-0.018	-0.058	0.001	-0.019	-0.060	0.002	-0.009	-0.051	0.005

	Volunteer support			Family support			Regular officers support			On-the-job learning			Challenging assignments		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.366	0.161	0.571	0.149	-0.108	0.405	0.437	0.245	0.630	0.602	0.349	0.856	0.356	0.054	0.658
c'	0.013	-0.174	0.201	-0.084	-0.300	0.133	0.088	-0.110	0.285	0.019	-0.235	0.273	-0.192	-0.466	0.082
a_xb_x	0.353	0.219	0.511	0.232	0.077	0.393	0.350	0.212	0.508	0.584	0.393	0.796	0.548	0.328	0.812
Other worker	-0.021	-0.143	0.082	0.009	-0.070	0.086	-0.056	-0.208	0.087	0.003	-0.132	0.141	0.014	-0.123	0.145
Value	0.244	0.129	0.392	0.119	0.030	0.274	0.305	0.189	0.464	0.306	0.166	0.493	0.247	0.113	0.417
Recipient	0.046	0.009	0.106	0.023	-0.004	0.088	0.027	0.003	0.075	0.066	0.010	0.153	0.082	0.016	0.187
Disengagement	0.101	0.029	0.200	0.083	0.022	0.185	0.088	0.007	0.185	0.236	0.072	0.419	0.212	0.089	0.391
Exhaustion	-0.016	-0.074	0.003	-0.002	-0.043	0.031	-0.015	-0.068	0.008	-0.027	-0.104	0.004	-0.007	-0.070	0.024

6.7.4 Volunteer job satisfaction

In support of hypothesis 7d, there was evidence to suggest that job demands had an indirect influence on volunteer job satisfaction through reduced connectedness in three of the five models (table 6.52). Role ambiguity and conflict with regular officers had the largest total indirect effects on volunteer job satisfaction with both sets of mediators included. In each case, in addition to the expected path through disengagement, the specific indirect effect through value connectedness was significant. This demonstrates the negative influence of both of these job demands on satisfaction through a reduced sense of value connectedness. V-FC was also found to have a significant total indirect effect however, this time the paths through other worker and value connectedness were significant. This suggests conflict between an individual's volunteering and their family life not only damages their sense of value connectedness, it also reduces the sense of connectedness special constables feel towards other workers[17].

Table 6.52: Model coefficients: job demands and satisfaction

	V-FC			W-VC			V-WC			Poor working relationships with regs			Role ambiguity		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCU	ULCI
c	-0.139	-0.199	-0.078	-0.107	-0.186	-0.027	-0.067	-0.129	-0.006	-0.219	-0.303	-0.136	-0.417	-0.499	-0.334
c'	-0.024	-0.074	0.026	-0.017	-0.079	0.046	-0.003	-0.050	0.044	0.001	-0.076	0.077	-0.178	-0.262	-0.093
$a_x b_x$	-0.115	-0.165	-0.065	-0.090	-0.156	-0.023	-0.064	-0.108	-0.019	-0.220	-0.291	-0.152	-0.239	-0.312	-0.179
Other worker	-0.019	-0.046	-0.003	-0.011	-0.040	0.001	-0.005	-0.021	0.003	-0.059	-0.123	0.003	-0.036	-0.094	0.024
Value	-0.025	-0.051	-0.008	-0.009	-0.034	0.006	-0.004	-0.024	0.006	-0.054	-0.100	-0.014	-0.054	-0.113	0.000
Recipient	-0.003	-0.014	0.002	-0.006	-0.022	0.001	-0.006	-0.021	0.001	-0.009	-0.029	0.000	-0.018	-0.046	0.001
Disengagement	-0.063	-0.100	-0.033	-0.058	-0.108	-0.019	-0.047	-0.081	-0.019	-0.095	-0.146	-0.056	-0.127	-0.186	-0.082
Exhaustion	-0.005	-0.023	0.012	-0.006	-0.031	0.016	-0.002	-0.015	0.003	-0.003	-0.019	0.003	-0.004	-0.022	0.003

Finally, there was strong support for hypothesis 8d as the specific indirect effect through disengagement was significant in each of the models predicting the indirect effect of job resources on volunteer job satisfaction (table 6.53). Once again the proportion of the effect through disengagement was broadly proportional across all of the job demands with the exception of on-the-job learning (a_4b_4=0.225, 95%CI[0.134, 0.331]), challenging assignments (a_4b_4=0.204, 95%CI[0.119, 0.318]) and the provision of social support from the family (a_4b_4=0.089, 95%CI[0.022, 0.172]). This again

[17] No evidence of cross-processes was found when examining the indirect effects of W-VC or V-WC.

demonstrates the importance of job challenge within the Special Constabulary but also highlight the important role played by external forms of social support such as the family in protecting individuals from the negative effects of burnout.

Table 6.53: Model coefficients: job resources and volunteer job satisfaction

	Perceived access to training			Task significance			Feedback			Perceived org support			Supervisory support		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.140	0.077	0.203	0.402	0.260	0.544	0.233	0.143	0.323	0.330	0.256	0.404	0.183	0.085	0.281
c'	0.009	-0.043	0.061	0.167	0.052	0.281	0.017	-0.063	0.096	0.072	-0.025	0.170	-0.009	-0.088	0.070
$a_x b_x$	0.131	0.087	0.181	0.236	0.119	0.363	0.216	0.142	0.299	0.257	0.158	0.358	0.192	0.120	0.267
Other worker	0.023	0.004	0.054	0.044	0.005	0.107	0.048	0.001	0.100	0.055	0.004	0.111	0.049	0.011	0.098
Value	0.040	0.010	0.077	0.055	0.014	0.121	0.067	0.015	0.122	0.061	-0.027	0.150	0.047	0.014	0.095
Recipient	0.006	0.000	0.020	0.023	-0.004	0.065	0.009	0.000	0.028	0.016	0.000	0.040	0.012	0.000	0.037
Disengagement	0.061	0.028	0.103	0.120	0.048	0.215	0.088	0.045	0.140	0.121	0.073	0.179	0.080	0.038	0.135
Exhaustion	0.001	-0.002	0.011	-0.005	-0.031	0.003	0.004	-0.004	0.022	0.004	-0.005	0.021	0.004	-0.003	0.022

	Volunteer support			Family support			Regular officers support			On-the-job learning			Challenging assignments		
	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI	Coeff.	LLCI	ULCI
c	0.274	0.150	0.397	0.121	-0.037	0.280	0.304	0.178	0.429	0.663	0.520	0.805	0.585	0.412	0.759
c'	-0.001	-0.102	0.100	-0.050	-0.167	0.067	-0.012	-0.124	0.100	0.263	0.131	0.396	0.220	0.075	0.365
$a_x b_x$	0.275	0.188	0.373	0.171	0.061	0.293	0.316	0.230	0.413	0.399	0.292	0.519	0.365	0.235	0.507
Other worker	0.061	0.010	0.128	0.040	0.006	0.099	0.075	-0.003	0.163	0.062	0.001	0.136	0.060	0.001	0.145
Value	0.060	0.017	0.117	0.032	0.004	0.091	0.080	0.024	0.141	0.075	0.017	0.142	0.068	0.020	0.138
Recipient	0.021	0.000	0.056	0.012	-0.002	0.052	0.011	-0.001	0.037	0.030	-0.003	0.082	0.032	-0.004	0.094
Disengagement	0.130	0.071	0.202	0.089	0.022	0.172	0.143	0.088	0.215	0.225	0.134	0.331	0.204	0.119	0.318
Exhaustion	0.003	-0.005	0.022	0.000	-0.012	0.010	0.007	-0.003	0.029	0.008	-0.003	0.040	0.002	-0.010	0.027

6.7.5 Summary

Overall these findings indicate that the paths of the JD-R model are not distinct within the Special Constabulary. In each of the outcome variables, there was evidence of the de-motivating effect of job demands through connectedness (H7a-d), as well as the positive influence of job resources through disengagement (H8a-d). These findings have clear theoretical and practical implications for the JD-R model and its use in the voluntary sector, pointing to the need to examine both the positive and negative aspects of volunteer work.

6.8 Conclusion

Overall there was strong support for the motivational pathway of the JD-R model within the Special Constabulary when considering the indirect effect of job resources on outcome variables through connectedness. Each of the job resources had a positive indirect effect on the determination to continue (H6a), affective commitment (H6b),

normative commitment (H6c) and volunteer job satisfaction (H6d). The findings indicate differential indirect relationships between job resources, the different components of connectedness and the outcome variables. Whilst the paths through value and recipient connectedness predicted higher levels of the determination to continue and normative commitment, the paths through other worker and value connectedness were associated with higher levels of volunteer job satisfaction. Significant specific indirect effects through each of the components of connectedness were found when examining affective commitment. The indirect relationship between job resources and normative commitment through value connectedness is perhaps most surprising, as it may have been expected that other worker connectedness would have been an important aspect of the socialisation process within the Special Constabulary associated with normative commitment. This may be because of the unique sub-culture of the police (Van Maanen, 1975; Reiner, 2010) and the position of special constables in relation to this (Leon, 1991), which may alter the ways in which individuals identify with each other.

The RWA findings revealed the importance of perceived organisational support in predicting criterion variance within the determination to continue affective and normative commitment. However, whilst perceived organisational support predicted the greatest amount of criterion variance in each of these variables, there was evidence that each of the outcome variables had a differential relationship with the other job resources. For instance on-the-job learning and the provision of challenging assignments were the next two largest predictors of criterion variance within the determination to continue, whilst support from regular officers and feedback were so within affective commitment. The RWA findings provide clear evidence that the importance of the job resources with respect to the prediction of criterion variance varies according to the outcome measure in question. As such, targeted interventions with respect to specific job resources (e.g. improving social support from regular officers) are unlikely to have an equal affect across all outcomes.

In line with Halbesleben and Buckley (2004) and Cox et al. (2010), there was evidence of cross-processes within the JD-R model. Specifically, it appears that job demands have a demotivating effect on levels of connectedness experienced by individuals within the force that impacts upon levels of determination (H7a), affective commitment (H7b), normative commitment (H7c) and volunteer job satisfaction (H7d). Support for this demotivating effect was found only through the value connectedness component. Similarly, there was evidence that job resources had a positive indirect effect on outcome measures through burnout (H8a-d).

Now that the dual and cross-processes of the JD-R model have been assessed, the following chapter examines the causal and reciprocal relationships between burnout, connectedness and the outcome variables (H9a-d, H10a-d, H11a-d, H12a-d).

Chapter 7 Longitudinal Analysis

7.1 Introduction

Chapter 7 of this thesis examines the causal (H9a-d; H10a-d) and reverse causal (H11a-d; H12a-d) relationships of the JD-R model within the Special Constabulary, using longitudinal data collected in two-waves over a six month period. As identified in the literature review (Chapter 2), whilst studies have examined the causal and reverse causal paths of the JD-R model within samples of paid workers no previous research has sought to confirm whether such theoretical perspectives hold in volunteer contexts.

7.2 Participants and procedure

The participants eligible for this study were those who served as special constables across two British county police constabularies. 327 specials responded to an online survey delivered through ESIBS at T1 resulting in 272 useable responses, a response rate of 46%. Of this 169 responded at T2 resulting in 150 usable responses, a response rate of 55%, which is high compared to other longitudinal studies. The high response rate at T2 was likely aided by the method by which the survey was delivered (ESIBS). As each special is required to use the system to log duty activities and arrange future duties engagement with the ESIBS system was high. With the exception of Penner and Finkelstein (1998), who used a financial incentive to encourage T2 participation[18], the response rates for the current study compares favourably to other volunteer-based longitudinal research (table 7.1).

Table 7.1: Response rates from longitudinal volunteer-based studies

Study	Method	Response rate	
		T1	T2
Penner and Finkelstein (1998)	Postal – pen and paper	32%	84% (T3, 81%)
Ross et al. (1999)	Postal – pen and paper	13%	43%
Greenslade et al. (2005)	Postal – pen and paper	37%	21%
Huynh et al. (2013)	Online	41%	36%

[18] $1 donation to the volunteer's charity.

Table 7.2 outlines the characteristics of the T1 (*N* = 272) and T2 (*N* = 150) sample. T2 respondents were asked to specify their rank, average number of hours volunteered, independent status, whether they were a member of police staff, or had other voluntary work, as well as their prior and future intentions to apply to the regulars. As T2 responses would be matched to those given at T1 respondents were not asked complete demographic details again. The T1 respondents differed from T2 in four ways. First, a greater proportion of male officers responded at T2. Second, officers completing the survey at T2 were more likely to be independent and less likely to say that they had made a prior application to the regulars or that they intended to make a future application. This is unsurprising as only those who answered initial survey were invited to complete the follow-up, it would be expected that those non-independent officers would have progressed on to independent status. Third, T2 respondents were less likely to want to make a future application to the regulars however, fewer of those who responded at T2 said that they had made a prior application to the regulars. Finally, officers ranked special constable responded at T2.

Table 7.2: Characteristics of T1 and T2 participants

	T1 %	T2%
Gender (% male)	74%	79%
Independent status (% yes)	55%	65%
Police staff (% yes)	12%	12%
Prior application to regulars (% yes)	55%	51%
Future application to regulars (% yes)	56%	53%
Have other voluntary work (% yes)	17%	18%
Employed (% yes)	82%	82%
Rank (% special constable)	79%	75%

7.3 Preliminary analysis

Respondents completed a survey containing the items for the independent (burnout, connectedness) and dependent (satisfaction, commitment, determination) variables at both data collection times. To remain consistent with the T1 analysis, the same factor structures for both burnout and connectedness at T1 were recalculated for the T2 variables. Table 7.3 outlines the mean scores, standard deviations and correlations between each of the variables measured at T1 and T2. There were three significant

changes in mean scores between the independent and dependent variables at T1 and T2. Scores on disengagement had increased $t(149)=-2.94$, $p<.01$, whilst scores for both volunteer job satisfaction $t(149)=4.46$, $p<.001$ and determination to continue as a volunteer $t(149)=2.07$, $p<.05$ had decreased. This suggests that special constables at T2 were experiencing a significantly higher level of disengagement as well as being less satisfied with their volunteer job and less determined to continue as a volunteer.

7.4 Longitudinal SEM analysis

First a stability model (M1) was specified in which estimates were calculated from the observed scores at T1 to their counterpart T2 variables. This model provides a baseline from which to evaluate subsequent models and also helps to control for third variables that might influence the T2 estimates (Zapf et al. 1996; Boyd et al. 2011). In this model, and in all subsequent models, the T1 observed variables were allowed to inter-correlate. In addition to this, the T2 error terms were also allowed to covary. To test the causal hypothesis of the health impairment process (H9a-d), paths were specified between T1 burnout and T2 outcomes (M1a). Similarly, in order to examine the motivational pathway (H10a-d), paths were specified between connectedness and outcomes (M1b). An overall dual-processes model (M2) was also tested in which paths from both burnout and connectedness to outcomes were specified simultaneously. To test for reversed and reciprocal causation within the health impairment (H11a-d) and motivational (H12a-d) processes, in addition to the paths specified in M2, cross-lagged structural paths from initial levels of outcomes (T1) to burnout and connectedness (T2) were specified (M3).

Table 7.3: Correlation table and descriptive statistics (*N*=150)

	Mean	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1 Disengagement T1	1.87	0.50	-																
2 Disengagement T2	1.98	0.51	.626**																
3 Exhaustion T1	2.26	0.62	.201*	.092															
4 Exhaustion T2	2.25	0.57	.234**	.369**	.583**														
5 Other worker T1	5.35	1.09	-.555**	-.465**	-.051	-.259**													
6 Other worker T2	5.22	1.17	-.453**	-.569**	-.098	-.258**	.566**												
7 Value T1	4.73	1.57	-.545**	-.533**	-.099	-.297**	.680**	.547**											
8 Value T2	4.58	1.56	-.467**	-.516**	-.102	-.214**	.503**	.687**	.716**										
9 Recipient T1	6.30	0.62	-.425**	-.282**	-.119	-.067	.345**	.237**	.270**	.185*									
10 Recipient T2	6.26	0.69	-.361**	-.236**	-.129	-.040	.189*	.293**	.210**	.162*	.474**								
11 Satisfaction T1	6.09	0.81	-.686**	-.554**	-.130	-.245**	.637**	.527**	.580**	.491**	.358**	.276**							
12 Satisfaction T2	5.82	1.00	-.606**	-.700**	-.141	-.197*	.557**	.654**	.568**	.637**	.263**	.262**	.676**						
13 Afective T1	4.64	1.14	-.543**	-.519**	-.023	-.185*	.625**	.436**	.615**	.492**	.363**	.183*	.571**	.534**					
14 Affective T2	4.61	1.11	-.420**	-.540**	-.046	-.236**	.490**	.522**	.488**	.617**	.261**	.109	.471**	.608**	.673**				
15 Normative T1	4.24	1.36	-.482**	-.400**	.029	-.069	.416**	.386**	.551**	.515**	.272**	.062	.495**	.415**	.651**	.590**			
16 Normative T2	4.11	1.36	-.361**	-.407**	.081	-.033	.364**	.442**	.507**	.597**	.227**	.090	.401**	.484**	.586**	.658**	.719**		
17 Determination T1	5.01	1.75	-.438**	-.361**	-.035	-.103	.330**	.244**	.370**	.377**	.211**	.089	.483**	.304**	.437**	.346**	.417**	.369**	
18 Determination T2	4.73	1.71	-.339**	-.499**	.016	-.103	.296**	.389**	.373**	.464**	.184*	.150	.427**	.486**	.464**	.496**	.408**	.513**	.567**

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

7.4.1 SEM results

The SEM results are shown in table 7.4. The initial stability model provided a satisfactory fit to the data. To test the causal hypothesis of the health impairment process, paths from disengagement and exhaustion to each of the outcomes were specified (M1a). Only the path between disengagement (T1) and satisfaction (T2) was significant (β =-.290, p<.001). Furthermore, the health impairment process model resulted in a significant improvement to model-fit fit $\Delta\chi^2$=19.091 (df =8, p<.05). This model provides support for hypothesis H9d.

Table 7.4: Goodness-of-fit statistics for longitudinal models

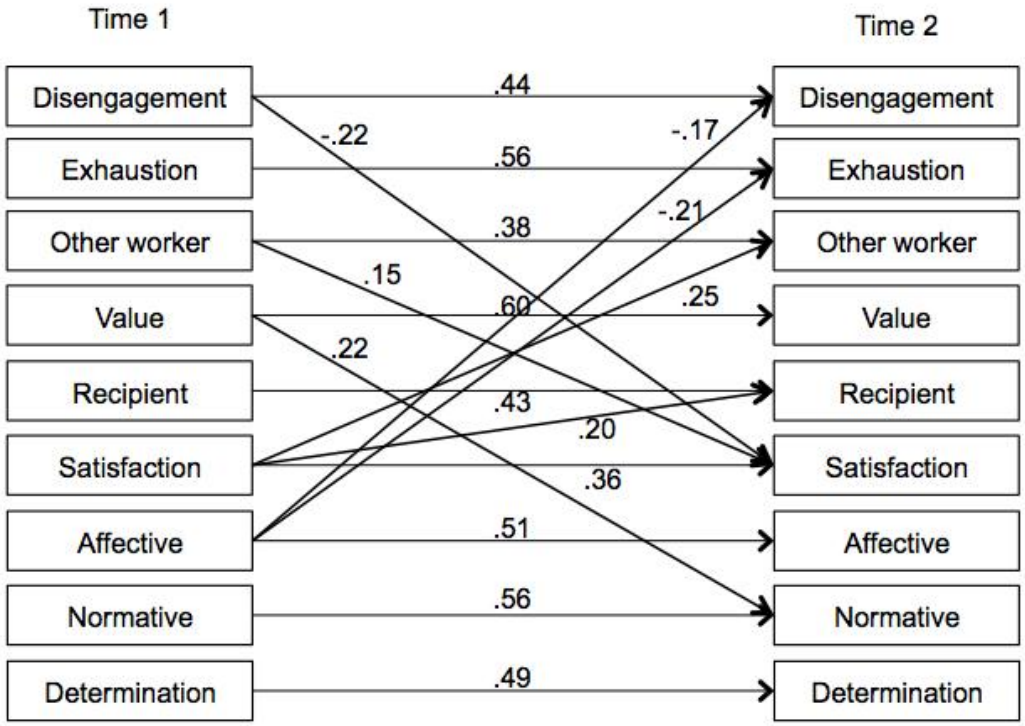
Model		χ^2	*df*	$\chi 2/df$	*p*	CFI	TLI	RMSEA	PCLOSE	SRMR
				***N*=150**						
M1	Stability	142.055	72	1.973	<.001	.955	.905	.081	.007	0.114
M1a	Health Impairment	122.964	64	1.921	<.001	.962	.910	.079	.016	0.100
M1b	Motivational	120.826	60	2.014	<.001	.961	.901	.082	.008	0.092
M2	Duall process	103.695	52	1.994	<.001	.967	.903	.082	.015	0.087
M3	Reciprocal	63.072	32	1.971	.001	.980	.905	.081	.046	0.430

Next, to examine the motivational pathway, paths were specified between each component of connectedness and the four outcomes (M1b). Significant paths from T1 other worker connectedness to T2 satisfaction (β =.192, p<.05) and T1 value connectedness to T2 normative commitment (β=.192, p<.05) were identified. These significant causal relationships provide support for hypotheses H10d and H10c respectively. A chi-square difference test indicated that motivational pathway fitted the data significantly better than the stability model ($\Delta\chi^2$=21.229 (df=12, p<.05)).

Following this, a dual-process model (M2) was specified in which paths from burnout and connectedness to each of the outcome variables were specified simultaneously. As per the health and impairment and motivational processes, significant paths were identified from T1 disengagement to T2 satisfaction (β=-.240, p<.01), T1 other worker connectedness to T2 satisfaction (β=.177, p<.05) and T1 value connectedness to T2 normative commitment (β=.215, p<.05). The dual-process model provided a better fit to the data than either the stability model ($\Delta\chi^2$=38.36 (df=20, p<.05)), or the models

predicting the health impairment ($\Delta\chi^2$=19.269 (*df*=4, *p*<.001)) or motivational ($\Delta\chi^2$=17.131 (*df*=8, *p*<.05)) pathways independently. This provides further support for hypotheses H9a, H10d and H10c.

Figure 7.1: Final structural model for longitudinal data[19]



Finally, reverse reciprocal relationships were specified from T1 outcomes to T2 burnout and connectedness (M3) and figure 7.1 presents the final structural model outlining the causal and reverse causal paths between burnout, connectedness and the outcome variables. In addition to the significant causal paths identified in M2, a significant reverse reciprocal relationship was found between T1 satisfaction and T2 other worker connectedness (β=.250, *p*<.01). This suggests that whilst other worker connectedness predicts satisfaction (causal), initial levels of satisfaction also influence the perception of other worker connectedness at T2. This highlights the importance of other worker connectedness in relation to satisfaction. Evidence of reversed causal relationships was also found between initial levels of satisfaction (T1) and T2 recipient

[19] For ease of reading, the correlations between T1 variables and between the T2 variable error terms are excluded.

connectedness (β =.203,p<.05), as well as between initial levels of affective commitment (T1) and disengagement (β=.-174, p<.05) and exhaustion (β=-.206, p<.05). These findings suggest that a volunteer's emotional connection to the Special Constabulary may serve as a protective mechanism lessening the latter experience of both disengagement and exhaustion. Furthermore, the reversed causal model fitted the data significantly better than both the stability model ($\Delta\chi^2$=78.983 (df=40, p<.05)) or the dual-process model ($\Delta\chi^2$=40.623 (df=20, p<.05)). These findings provide support for hypothesis H11b and H11d as well as H12c and H12d.

7.5 Conclusion

The analysis presented within this chapter suggests that the level of disengagement within the Special Constabulary has increased significantly between T1 and T2. Furthermore ratings of volunteer job satisfaction, commitment (affective/normative) and determination to continue as a volunteer all decreased however, only the difference between T1 and T2 levels of determination to continue as a volunteer was significant.

The only evidence of significant causal relationships within the health impairment process suggested by the JD-R was between initial levels of disengagement and T2 satisfaction (H9d). Concerning the motivational pathway, T1 levels of other worker connectedness predicted satisfaction (H10d), whilst T1 value connectedness predicted normative commitment. The SEM analysis indicated that the dual-process model (M2), in which both the health impairment and motivational processes were plotted simultaneously, fitted the data significantly better than either the stability model or the two models plotting these paths independently.

Finally, evidence of both reversed and reciprocal causation was found. In M3, T1 other worker connectedness predicted T2 satisfaction, whilst T1 levels of satisfaction was also found to influence T2 perceptions of other worker connectedness. This highlights the importance of social relationships, including the sense of belonging, appreciation and respect experienced between volunteers and other members of the Special

Constabulary. Evidence of reverse causation was also found between T1 satisfaction and the perception of recipient connectedness at T2, as well between T1 levels of affective commitment and latter levels of disengagement and exhaustion (T2). This suggests that initial levels of volunteer job satisfaction help to develop a greater sense of recipient connectedness at T2. The findings concerning affective commitment suggest that a strong emotional attachment to the Special Constabulary may help to reduce the experience of burnout.

7.6 Summary of findings in thesis

The aim of this thesis was to explore the job characteristics associated with the well-being, job satisfaction, commitment and retention of volunteers serving as specials within the Special Constabulary. To investigate these issues an online survey was delivered to special constables serving across two Special Constabularies (n=272). A follow-up survey was sent out six months later to those who completed the first wave (n=150). As organisational-type variables such as job characteristics and burnout are seldom examined within volunteer contexts, measures developed from studies of paid workers were carefully deployed into this context. Although convergent and discriminant validity was achieved, preliminary analysis of the two mediator variables revealed complications within their original intended factor structures (Chapter 4). In the case of burnout (OLBI) five of the exhaustion and two of the disengagement variables were removed. There were also complications with the factor structure of the four-dimensional organisational connectedness scale. Although connectedness was developed specifically for use within volunteer samples, its original four-factor structure did not satisfy tests for discriminant validity. A three-factor structure of other worker, value and recipient connectedness was the only model to achieve discriminant validity and satisfactory fit. The omission of task connectedness is perhaps understandable given the nature of the work specials conduct. The tasks associated with police work are highly varied, possibly involving desk-based paper work, routine patrol, policing of

the night-time economy, helping victims of crime including domestic violence, or reactive police work. Defining the tasks associated with police work is therefore complex and each of these different tasks is likely to elicit a different emotional response or level or enjoyment. Finally, analysis of the psychometric properties of the independent (demands, resources) and outcome (satisfaction, commitment) variables provided encouraging results, highlighting the potential of such variables for use in future studies of volunteers.

Preliminary analysis conducted in Chapters 5 and 6 confirmed the expected direction of relationships between job demands (H1a-b), job resources (H2a-b) and burnout/ connectedness as well as between burnout (H3a-d), connectedness (H4a-d) and the four outcomes assessed in this research (table 7.5). Significant correlations between survey items and the ESIBS variables were also found. This included the finding that training related duties were associated with lower levels of disengagement. The PROCESS analysis in Chapters 5 and 6 provided a detailed examination of the dual (H5a-d, H6a-d) and cross-processes (H7a-d and H8a-d) of the JD-R model using cross-sectional data. This analysis identified significant indirect effects between job characteristics and outcome measures through both burnout and connectedness. This provides support for notion that volunteer job characteristics influence the health impairment and motivational processes within Special Constabulary volunteerism. Chapter 5 also provided the first analysis of the relationships between perceived levels of reciprocity between special constables, members of the public and burnout. The results confirm that those who experience reduced levels of reciprocity also experience a higher level of burnout and in particular disengagement. This has profound theoretical and practical implications concerning the relationship between the volunteers of the Special Constabulary and the public that will be discussed later.

Chapter 5 provides strong evidence for the impact of the health impairment process within the Special Constabulary. However, unlike previous studies of paid workers

these findings provide support for the indirect effect of job demands through disengagement rather than exhaustion. This suggests that specials are employing passive coping strategies to distance themselves from their work in response to demands experienced. Regardless of the outcome evaluated, role ambiguity was found to have the largest indirect effect. This highlights the importance of ensuring that special constables are provided with the relevant information required to understand what is expected of them in their role (Rizzo et al. 1970). Poor working relationships between regular officers, as well as conflict between volunteering and family-life were also consistently found to have significant indirect effects on each of the outcome measures through disengagement. The RWA confirmed the importance of role ambiguity in predicting criterion variance, with the exception of affective commitment. In this instance the impact of negative working relations with regular officers explained the greatest amount of variance. Overall the RWA analysis indicted that the independent and mediator variables explained the least amount of variance within the determination to continue as a volunteer and the most within volunteer job satisfaction.

Strong support was also found for the motivational pathway of the JD-R model (Chapter 6), with the indirect effect of job resources typically transmitted through value connectedness. The RWA analysis demonstrated the varying importance of the different job resources depending on the outcome of interest. Once again, the independent and mediator variables explained the least amount of variance within the determination to continue. Chapter 6 also considers the cross-processes of the JD-R model. This analysis confirmed that job demands had a demotivating effect through connectedness whilst job resources helped lessen the effect of disengagement, but not exhaustion, within the Special Constabulary.

The final empirical chapter of this thesis examined the causal (H9a-d, H10a-d) and reverse causal (H11a-d, H12a-d) relationships between burnout, connectedness and the four outcome variables using longitudinal data. Significant causal and reverse

causal relationships were identified. The model predicting reversed causal relationships provided a better fit to the data that either the stability or dual processes models. In particular a reciprocal relationship was identified between other worker connectedness and satisfaction. However, it is important to note that the tests employed in Chapter 7 were relatively conservative. Therefore the identification of significant paths between disengagement, other worker connectedness and satisfaction and value connectedness and normative commitment provides strong support for the direction of causality concerning these variables.

Table 7.5: Summary of hypotheses

Hypothesis	Overview	Result	Significant paths
H1	**Job demands are:**		
	a) positively correlated with burnout	Supported	
	b) negatively correlated with connectedness	Supported	
H2	**Job resources are:**		
	a) positively correlted with connectedness	Supported	
	b) negatively correlated with burnout	Supported	
H3	**Burnout is negatively correlated with:**		
	a) determination to continue as a volunteer	Supported	
	b) affective commitment	Supported	
	c) normative commitment	Supported	
	d) volunteer job satisfaction	Supported	
H4	**Connectedness is positively correlated with:**		
	a) determination to continue as a volunteer	Supported	
	b) affective commitment	Supported	
	c) normative commitment	Supported	
	d) volunteer job satisfaction	Supported	
H5	**Burnout will have a significant indirect effect in the negative relationship between job demands and:**		
Dual processes: health impairment	a) determination to continue as a volunteer	Supported	Disengagement
	b) affective commitment	Supported	Disengagement
	c) normative commitment	Supported	Disengagement
	d) volunteer job satisfaction	Supported	Disengagement
H6	**Connectedness will have a significant indirect effect in the the positive relationship between job demands and:**		
Dual processes: motivational pathway	a) determination to continue as a volunteer	Supported	Value
	b) affective commitment	Supported	Other worker, value, recipient
	c) normative commitment	Supported	Value, recipient
	d) volunteer job satisfaction	Supported	Other worker, value, recipient
H7	**Job demands will have a significant negative indirect effect through connectedness on:**		
Cross process de-motivating:	a) determination to continue as a volunteer	Supported	Value, disengagement
	b) affective commitment	Supported	Other worker/value, disengagement
	c) normative commitment	Supported	Value, disengagement
	d) volunteer job satisfaction	Supported	Value, disengagement
H8	**Job resources will have a significant positive indirect effect through burnout on:**		
Cross process: protective	a) determination to continue as a volunteer	Supported	Disengagement, value
	b) affective commitment	Supported	Disengagement, other worker/value/recipient
	c) normative commitment	Supported	Disengagement, value/recipient
	d) volunteer job satisfaction	Supported	Disengagement, other worker/value
H9	**Burnout (T1) will negatively predict outcomes (a-d) at T2:***		
Causal: health impairment	a) T2 determination to continue as a volunteer	Not supported	
	b) T2 affective commitment	Not supported	
	c) T2 normative commitment	Not supported	
	d) T2 volunteer job satisfaction	Supported	Disengagement
	** controlling for T2 burnout/T1 outcomes (a-d)*		
H10	**Connectedness (T1) will positively predict outcomes at T2:***		
Causal: motivational pathway	a) T2 determination to continue as a volunteer	Not supported	
	b) T2 affective commitment	Not supported	
	c) T2 normative commitment	Supported	Value
	d) T2 volunteer job satisfaction	Supported	Other worker
	** controlling for T2 connectedness/T1 outcomes (a-d)*		
H11	**Outcomes (T1) will predict negatively predict burnout (T2):***		
Reciprocal: health impairment	a) T1 determination to continue as a volunteer	Not supported	
	b) T1 affective commitment	Supported	Disengagement, exhaustion
	c) T1 normative commitment	Not supported	
	d) T1 volunteer job satisfaction	Supported	Disengagement
	** controlling for T2 outcomes variables and T1 burnout*		
H12	**Outcomes (T1) will positvely predict connectedness (T2):***		
Reciprocal: motivational pathway	a) T1 determination to continue as a volunteer	Not supported	
	b) T1 affective commitment	Not supported	
	c) T1 normative commitment	Supported	Value
	d) T1 volunteer job satisfaction	Supported	Other worker, recipient
	** controlling for T2 outcomes and T2 connectedness*		

Chapter 8 of this thesis will now discuss the implications for these findings as well as for those identified in chapters 5 and 6.

Chapter 8 Discussion and conclusion

8.1 Introduction

This chapter is divided into three main sections. The first section considers the theoretical implications of the research including the impact of burnout (Chapter 5) and connectedness (Chapter 6) within the Special Constabulary. The relationship between burnout and reciprocity is also discussed and consideration is given to the empirical links found between interactions with officers and the impact of these on the public's perception of the police found in other research. The theoretical implications of the cross-processes (Chapter 6), and causal/reverse causal and reciprocal relationships are also discussed. The second section discusses the methodological contributions of the study, whilst the third section considers the implications of this research to practice. This chapter concludes by considering the limitations of the study and provides suggestions for future research.

8.2 Contributions to theory

8.2.1 Burnout within the Special Constabulary

This thesis is the first to examine the concept of burnout within either a UK voluntary sector or police volunteer context. Overall, it was found that burnout plays an important role in reducing the level of volunteer job satisfaction, commitment and determination to continue within the Special Constabulary. However, unlike previous paid and voluntary sector research, these findings suggest that disengagement and not exhaustion is responsible for indirect relationship between volunteer job characteristics and outcomes. Consequently, whereas studies have linked the lack of volunteer job resources to retention through cynicism (Huynh et al. 2012c), this study indicates that the demands associated with Special Constabulary volunteerism reduce the determination to continue as a volunteer, commitment and satisfaction through disengagement. In terms of health impairment within the Special Constabulary, this

suggests that rather than experiencing emotional and physical fatigue, specials develop coping mechanisms as a means of self-preservation to alleviate the demands of their volunteer work.

Despite the significance of disengagement found in this study, preliminary data analysis suggested that exhaustion (2.25) was more severely experienced by specials than disengagement (1.84) ($t(271)=-10.63$, $p<.001$). As there are no previously published articles reporting OLBI mean scores for exhaustion and disengagement within either police or volunteer samples, it is difficult to estimate how a special's experience of burnout compares to other contexts. Demerouti et al. (2010)[20] reported OLBI means scores of 2.17 for exhaustion and 2.07 for disengagement in their study of South African construction workers suggesting, at the very least, a similar pattern of burnout to this study. However, it is important to consider how the profile of burnout within the Special Constabulary compares to more theoretically relevant samples such as police officers and other volunteers.

Police-based research indicates that cynicism or depersonalisation, the MBI's equivalent to OLBI disengagement, is a more prevalent aspect of police burnout than exhaustion. Kop et al. (1999) used the MBI to study burnout within the Dutch police, finding low levels of exhaustion and moderate levels of depersonalisation (disengagement). Similarly Hawkins' (2001) study of US police, also using the MBI, reported higher levels of depersonalisation compared to exhaustion. Alternatively, Schaufeli and Enzmann (1998) compared the burnout profiles of five different occupations in both the US and the Netherlands to conclude that police work was characterised by comparatively high levels of cynicism and lower levels of exhaustion. The prevalence of disengagement within paid police work also corresponds with

[20] The current study used a different composition of indicator variables to compute the mean scores reported compared to the study to that of Demerouti et al. (2010). Therefore it is not possible to draw direct comparisons between the scores reported in this thesis and those reported by Demerouti et al. (2010). Additional analysis conducted on the disengagement and exhaustion scales using all 16 original items of the OLBI did however confirm higher ratings for exhaustion.

Neiderhoffer's (1967) view of police cynicism. Whilst this seems to suggest that the profile of Special Constabulary burnout that is different from paid police work, there are important differences between these two domains that need to be taken into consideration before drawing conclusions.

Aside from obvious distinctions such as the lack of pay, for many volunteering is an activity that is conducted in-between paid employment and other commitments and this may account for the higher levels of exhaustion found. For instance, 90% of specials participating in this research had some form, of paid work, whether part-time (7%) or full-time (82%), whilst, 17% of respondents also engaged in additional voluntary work. Despite these commitments, nearly three-quarters of specials volunteered more time than the 16-hour monthly requirement asked by the Special Constabulary. Whilst neither the presence of paid employment, nor number of hours volunteered, directly influenced the level of burnout experienced little is known about the impact of paid work on volunteer well-being.

There is evidence to suggest that the profile of burnout experienced within the Special Constabulary may be more comparable with other voluntary sector contexts than to paid work. For instance, a number of voluntary sector studies examining burnout through the MBI have also reported higher levels of exhaustion compared to disengagement (Ross et al. 1999; Lewig et al. 2007; Huynh et al. 2012c; Cox et al. 2010). Therefore, rather than being specific to the type of work conducted (e.g. police work), the experience of burnout found here may also be influenced by the nature of the work (e.g. volunteering). There is insufficient evidence to determine whether the presence of paid work, the nature of the work being voluntary or a combination of both influences burnout. Recent research exploring the relationship between paid work and volunteering has tended to focus on the ways in which volunteering benefits employment. For instance volunteer work has been found to compensate for the lack of enrichment found in paid work (Grant, 2012), improve employability (Ellis Paine et al.

2013), as well as positively influence engagement and performance at work (Rodell, 2013). However, the impact of paid work on volunteer well-being has yet to be addressed. Individuals may experience exhaustion in their volunteer work but find that they are able to compensate by calling on reserve energy levels unused in paid work or, as suggested here, by disengaging from their voluntary work. Volunteer burnout for those with paid employment may therefore represent only 'half of the picture' in terms of an individual's response to the total amount of 'work' conducted. There is certainly evidence within this thesis to suggest that exhaustion does not influence the determination to continue within the Special Constabulary. Despite reporting higher levels of exhaustion, specials developed strategies such as distancing behaviours as a means of dealing with the demands of their volunteer work. Further research is therefore required to understand the interaction between well-being at paid work and volunteering.

In addition to the impact of the context within which burnout is assessed, and the ways in which this shapes the experience of the phenomenon, the differences observed between paid police, Special Constabulary and voluntary sector burnout may have been attributable to the measurement tool used. Unlike the MBI, the OLBI uses a different conceptualisation of burnout that, as argued here, may be more relevant to volunteers. The MBI understands depersonalisation (disengagement) to be an immediate response to emotional exhaustion characterised by a process in which individuals begin to develop callous and impersonal attitudes towards the recipients of the service being provided (Maslach and Jackson, 1981; Jackson and Maslach, 1982). However, the OLBI considers depersonalisation to be only one aspect of a more general state of disengagement from work. Disengagement refers to the process by which individuals distance themselves not only from their recipients, but also from their work in general (Demerouti et al. 2010). Therefore, OLBI disengagement refers to the, "relationship between employees and their job, particularly with respect to identification

with work and [the] willingness to continue in the same occupation" (Demerouti et al. 2010: 211). It is possible that, because the MBI conceptualisation refers only to the distancing directed towards recipients, it is less relevant to more altruistically motivated volunteers. This research indicates that when the concept of disengagement is broadened to consider not only recipients, but also the work itself, that disengagement becomes more relevant to volunteers.

It may also be contested that because the MBI and the OLBI represent different conceptualisations of the same phenomenon this influenced the profile of burnout measured in the Special Constabulary. Whilst this this cannot be excluded from reason, multi-trait multi-method (MTMM) has confirmed the convergent validity of the MBI and OLBI in samples of paid workers (Demerouti et al. 2003; Halbesleben and Demerouti, 2005). This suggests that these two scales measure the same phenomenon. Furthermore, Bakker and Heuven's (2006) study of emotional labour and burnout in both police officers (MBI) and nurses (OLBI) found an identical pattern of results across these two samples. Such findings help allay concerns that the measurement indices might have influenced the results found in this study. Clearly it would be informative to conduct similar MTMM research to confirm the convergent validity of the OLBI and MBI across volunteer samples and between paid work contexts. The apparent similarities between the profile of Special Constabulary burnout and other volunteer contexts highlights the importance of developing further knowledge surrounding the effects of the work environment on well-being. This also suggests that Chief Officers and volunteer managers more broadly should consider developing sector specific knowledge, rather than that drawing directly upon the empirical findings of regular police officers or paid workers more generally when developing retention strategies.

8.2.2 Health Impairment or demotivation?

The results reported in Chapter 5 provided strong support for the indirect effect of job demands on the outcome measures including retention through volunteer burnout. When volunteers have insufficient information to know what is expected on them in their role (role ambiguity), encounter poor working relationships with paid staff (regular officers) or experience inter-role conflict (volunteering-family and work-volunteering), this has an adverse impact on volunteer well-being that reduces job satisfaction, commitment and the determination to continue. The common feature linking job demands to these outcomes is the experience of disengagement. Therefore, rather than being part of an energetic process in which volunteers find themselves exerting a sustained level of additional effort, the link between job characteristics and outcomes appears to manifest itself through distancing behaviours and disengagement. However, the theoretical path through which job demands are expected to influence burnout and outcomes in the JD-R model is through exhaustion and not disengagement. Demerouti et al. (2001) suggested that whilst the presence of job demands leads to energy depletion and exhaustion, environments lacking in job resources result in reduced motivation and withdrawal as self-protection strategies. It is therefore important to consider why within the context of the Special Constabulary the indirect effect of job demands is carried through disengagement and not exhaustion.

Although not initially intended to explain burnout, Schaufeli and Bakker (2004) argue that the processes of exhaustion and disengagement can be understood in terms of the deployment of different coping strategies. For instance, according to the model of compensatory control, when faced with increased job demands, individuals can adopt two different coping strategies (Hockey, 1997). The strain coping mode suggests individuals compensate for high job demands by investing additional energy to maintain performance levels. Under normal circumstances, where the exposure to excessive demands is not prolonged, this additional energy comes from reserves that can be

replenished by rest. However, long-term exposure to such demands results in maladaptive responses that further diminish energy levels and results in exhaustion (Schaufeli and Bakker, 2004). Alternatively, to cope with excessive demands, individuals can adopt a passive coping strategy involving the downward adjustment of performance targets (Hockey, 1997). As individuals continue maintain high effort levels to avoid further psychological costs they become susceptible to disruptions in performance, such as a reduction in goal orientation. Hockey (1997: 82) suggests that an extreme form of passive coping could result in the complete disengagement from work tasks. It is also suggested that passive coping strategies are more common in self-managed tasks, as they are more likely to be those that can be suspended and then restarted at a more suitable time for the individual (Hockey, 1997).

The prevalence of disengagement found in Chapter 5 highlights the importance of passive coping strategies within the Special Constabulary. This is underlined by the self-managed nature of the work, as unlike paid police officers, volunteers are able to withdraw at times when they feel unable to cope. Higher ratings of exhaustion suggest that specials are willing to sustain an increased effort level to continue volunteering. However, in order to do so they adopt passive coping strategies that may impact upon the way in which the work is carried out. Hockey (1997: 82) suggests that passive coping strategies include the downward adjustment of performance targets, such as a reduction in goal orientation through reduced levels of accuracy. In terms of the Special Constabulary this may include a reduction in the number of hours volunteered, reduced levels of accuracy when completing paperwork or lower attendance in subsidiary activities such as additional training.

Despite the physical demands associated with police work (Anderson et al. 2002), strain coping strategies appear to be less relevant within the Special Constabulary. This may be because specials account for these demands before deciding to volunteer, or leave quickly if they find they have miscalculated their impact on energy levels.

Potential specials would be made aware of the minimum hourly commitment expected of them and would probably, to some extent, be aware of the nature of police work. As specials may be aware of the demands on energy levels that police work entails they may be more able to manage their overall use of energy in other domains to compensate. Therefore, whilst experiencing higher levels of exhaustion (than disengagement) when volunteering, part of the cause of this may be external (e.g. exhaustion levels at paid work spilling over into volunteering). This may account for the non-significant indirect relationships through exhaustion, as individuals do not perceive their depleted energy levels to be associated with the demands of their volunteering.

Strain coping may also be less relevant within the Special Constabulary because of an on-going burnout processes that filters out specials in the early stages of their volunteering. Burnout that is experienced within the first year of employment within the police is known to have an important impact on turnover in UK-based paid police officers (Biggam et al. 1997), therefore it seems likely that similar relationships might be found in the Special Constabulary. Similarly, Mirrless-Black and Byron (1994) reported that volunteers are particularly vulnerable to negative experiences within the Special Constabulary during the early stages of their volunteering. Supporting this notion, small to weak positive correlations were found between both components of burnout and tenure within the Special Constabulary in this study.

Schaufeli and Bakker (2004: 298) suggest that both stain and passive coping strategies may unfold sequentially. Therefore, volunteers may continue to invest additional energy leading until they reach a critical point at which they switch from strain coping modes to passive coping modes. This view is supported by research suggesting that disengagement is an immediate response to exhaustion (Maslach, 1993; Bakker et al. 2000). As both disengagement and exhaustion were entered simultaneously the impact of disengagement is conditional upon the presence of exhaustion within the models. Although additional analysis (not reported in this thesis) confirmed the significant

indirect effect of job demands through disengagement and not exhaustion when analysed separately, another possible specification of this relationship could be to examine for interaction effects between job demands, exhaustion, disengagement and outcomes. It may be that, for instance, the effect of job demands on disengagement, or of disengagement on outcome measures is moderated by the level of exhaustion experienced by volunteers.

The importance of disengagement within the Special Constabulary is not surprising when considering previous police-based research into officer well-being. Although there is some evidence supporting the impact of exhaustion within police work (Burke and Mikkelsen, 2006), Neiderhoffer (1967) theorised a unique pattern of police officer well-being, suggesting that relatively committed officers slowly developed cynical attitudes as their tenure within the organisation increased. Studies have subsequently failed to replicate either Neiderhoffer's unidimensional factor structure (Rafky, 1975; Regoli and Poole, 1979), or many of the initial hypotheses posed (Rafky et al. 1976; Regoli, 1976). However, from Neiderhoffer's research, two underlying dimensions of cynicism have been identified that are directly relevant to this study: cynicism directed towards members of the public and, cynicism towards the work itself (Rafky, 1975; Regoli and Poole, 1979; Lotz and Regoli, 1977). Unlike the MBI, which examines depersonalisation directed towards the recipients of the service provided, OLBI disengagement captures both of these underlying concepts and this may explain the significance of this component over exhaustion. With disengagement entirely responsible for the indirect effect of job demands on outcomes this finding may lend credence to the underlying principle of Neiderhoffer's (1967) police cynicism.

Although the indirect effect of exhaustion on the outcomes assessed in this research was not significant, there is evidence to suggest some consistency with other voluntary sector studies. In line with previously published volunteer-based studies (Ross et al. 1999; Huynh et al. 2012c), this study found no evidence to suggest that exhaustion

was indirectly related to volunteer retention or any of the other outcomes assessed in the research. Similarly, Lewig et al. (2007) found evidence that burnout predicted the determination to continue as a volunteer as well as general health problems, with the effect of exhaustion significant in this relationship. One possible explanation for the non-significant findings regarding exhaustion here could be the omission of any health related outcomes in the current study. Alternatively, this highlights the importance of examining both components of burnout independently. Cox et al. (2010), who included depression as an outcome in their study of HIV/AIDS volunteers, found that exhaustion and not depersonalisation mediated the relationship between job characteristics and this outcome. As found in this study, Cox et al. (2010) reported that job characteristics (demands and resources) predicted organisational satisfaction, but not intrinsic satisfaction or depression through depersonalisation. However, the only significant indirect effect found between job characteristics and the health related outcome (depression) was through exhaustion (Cox et al. 2010). Although there is limited evidence linking disengagement to both health problems and determination to continue (Lewig et al. 2007), the inclusion of a health related outcome within this research may have resulted in the identification of significant indirect effects through exhaustion. This thesis however provides strong support for the conclusion that job demands do not influence non-health related outcomes such as retention, commitment and satisfaction through exhaustion.

8.2.3 Job demands within the health impairment process

The common finding that links job demands to the various outcome measures assessed in this study was the impact of passive coping and distancing behaviours. With the exception of V-WC, job demands had a significant indirect effect on each of the outcome variables. However, the R^2 statistic calculated in the RWA (Chapter 5) indicated that job demands explained substantially more variance within satisfaction (46%-54%) compared to the other outcomes (17%-32%). As a detailed analysis of the

indirect effects of each job demand on each outcome was provided in Chapter 5, the full results shall not be restated here. The following paragraphs therefore provide a discussion of the theoretical implications of each of the job demands within the Special Constabulary and wider voluntary sector context.

Role ambiguity: Role ambiguity was identified as one of the most detrimental job demands to volunteer health and well-being in this study. This supports previous voluntary sector (Ross et al. 1999; Huynh et a. 2012c) and police-based research (Holgate and Clegg, 1991) examining the effects of role ambiguity on individual-level outcomes. According to Turbe and Collins (2000), roles represent a pattern of behaviours that employers expect of their employees. This study indicates that when specials lack clarity concerning the behaviours expected of them, they experience burnout resulting in the activation of passive coping strategies. Although a strong chain of command is thought to reduce the occurrence of strain and role ambiguity (Rizzo et al. 1970), this does not appear to be the case within the Special Constabulary. Possible explanations for this finding are discussed below.

Previous research suggests that whilst specials may be motivated by a desire to contribute towards policing their involvement is often resisted by regulars (Gill and Mawby, 1990a; 1990b). This resistance may lead specials to question whether their behaviours are appropriate for the role, as they seek alternative means to gain the acceptance of regulars. Individuals within the same organisations explicitly and implicitly communicate their expectations and standards regarding the behaviour of others (Turbe and Collins, 2000). Therefore, the extent to which these are communicated between regulars and specials may influence role ambiguity. Specials may find that their expectations of the role are different from those assumed by regular officers. Alternatively, guided by more altruistic motives, individuals may find that their expectations of volunteer work differ from the reality of working within the Special Constabulary. Despite the high regard in which they are held by specials (Mirrlees-

Black and Byron, 1994), the reluctance of some regulars towards volunteers (Leon, 1991) may lead volunteers to question whether their behaviours are leading to the negative attitudes they experience. Although the impact of role ambiguity does not specifically refer to the behavioural expectations of regular police officers, the relationships between paid staff and volunteers including their attitudinal similarities (Liao-Troth, 2001) and differences (Pearce, 1983) are an important aspect of volunteerism.

Working relationships with regular officers: Poorly perceived working relationships between regular officers and specials also resulted in disengagement that, in turn, had a negative influence on outcomes. The impact of this variable was most apparent when predicting affective commitment and suggests that poorly perceived working relationships with regular officers has a substantial influence on the emotional attachment felt towards the Special Constabulary.

Police organisations are potentially stressful environments (Zhao et al. 2002), characterised by unique socialisation processes (Van Maanen, 1975). Officers are thought to develop working personalities (Skolnick, 1966) in order to cope with the work, whilst 'cop culture' (Reiner, 2010) has been used to demonstrate the sense of isolation and solidarity developed in police work. Reiner (2010) also discusses how this sense of solidarity can lead to conflicting relationships between 'street cops' and 'management cops', each of whom have contradictory functions within the police. This research suggests that such arguments may be extended to incorporate other officer types including special constables. One possible explanation for this is the conceptual role played by specials within the police. Whilst serving as advocates of the police, specials are also exposed to the inner workings of the police. Many regular officers may view this as a threat to their professional status, but it may also expose their behaviours to outsiders who, in the eyes of regular officers, may not understand the pressures associated with police work (Leon, 1991; Mirrlees-Black and Byron, 1994).

These fears may increase the resistance of regulars to involve specials in various aspects of the work.

The high regard in which specials hold regular officer (Mirrlees-Black and Byron, 1994) may further influence burnout and other outcomes when poor working relationships are experienced. This is possibly one reason why this variable impacted so strongly on affective commitment. Therefore, the uncooperative and unsupportive behaviour of regulars causes volunteers to question their identification with and involvement in the Special Constabulary. The reason that poorly perceived working relations with regular officers impacts upon affective commitment more substantially than normative commitment (i.e. the level of commitment felt through organisational socialisation), may be because specials tended to work predominately with other volunteers within the two participating police forces. Therefore, because the scale used to measure normative commitment did not distinguish between these two occupational groups, specials may have answered these questions in reference to those with whom they work more frequently (i.e. other volunteers).

Whilst there is evidence to suggest that paid staff resist volunteer involvement in other contexts (Brudney, 1990), Netting (2004) suggests that this is dependent upon the cultural norms of the organisational context under investigation. Although specials work within the same rank structure as the regular service, volunteer ranks are subordinate to that of regular officers. Therefore, regardless of their rank, volunteers hold a fundamentally different status to that of paid officers. Netting (2004) draws on organisational culture theory (Schein, 1992) to suggest how the perceived differences between volunteers and staff become part of the underlying culture of the organisation that can be absorbed into the subconscious. Therefore, whilst regular officers may be unaware of the ways they are treating volunteers, specials pick up of these cultural artefacts, here in the form of reduced cooperation and support. This leads to a perception that regular officers do not appreciate volunteers, are unwilling to cooperate

with them and view with suspicion their motives. The longstanding issue of regular police officers' attitudes towards specials previously found appears to have a substantial effect on the well-being of volunteers, which in turn, reduces not only commitment and satisfaction, but also their determination to continue as a volunteer.

Inter-role conflict: The impact of volunteer work on home and family life has previously been found to influence retention in special constables (Mirrlees-Black and Byron, Gaston and Alexander, 2001) and regular police officers (Hall et al. 2010). Despite this, the underlying processes responsible for these relationships were not understood. This thesis confirms that, just as in studies of paid workers including police officers (Hall et al. 2010; Martinussen et al. 2007; Mikkelsen and Burke, 2004; Howard et al. 2004) and volunteers (Huynh et al. 2012c; Lewig et al. 2007; Cowlishaw et al. 2010), inter-role conflict between volunteering and the family domain (V-FC) is an issue within Special Constabulary volunteerism. V-FC was found to have a significant indirect effect on all outcome variables through disengagement, with the relative importance of this variable consistent across each of the outcomes. These findings suggest that, whilst families are likely to be an important source of support, the demands of Special Constabulary volunteering and family life are at times incompatible. The fact that the effect size of V-FC on determination to continue as a proportion of the total amount of variance explained was similar to that of working relationships with regular officers highlights the importance of external demands on volunteer work.

This thesis also addressed two other forms of inter-role conflict: conflict between paid work and volunteering (W-VC) and conflict between volunteering and paid work (V-WC). As previously stated the relationship between paid work and volunteering is poorly understood. Studies have examined the benefits of volunteering on paid work but not the counter relationship between the two domains. This was deemed significant because previous Special Constabulary research suggests that external demands such as study and work commitments are important factors that influence retention (Mirrlees-

Black and Byron, 1994; Gaston and Alexander, 2001). One of the significant limitations of existing research is the lack of clarity surrounding the relationship between these domains. For instance it was unclear whether paid work impacted volunteering, or whether the demands of volunteering spilled over into paid work. The results reported here suggest that when paid work impacts on volunteering individuals experience burnout. This is to some extent to be expected, as the domain in which the conflict is being experienced (e.g. volunteering) is more likely to affect outcomes within that domain (e.g. retention). Furthermore, as for many individuals paid work is an essential activity (Metzer, 2003), volunteers may be unlikely to reach a point at which the demands from volunteering significantly influence paid work.

This thesis identifies that both internal and external volunteer job demands influence outcomes including retention. Even where job demands are external to the Special Constabulary, volunteers appear to adopt passive coping strategies to mitigate their effects rather than developing performance protection strategies characterised by fatigue or exhaustion. Passive coping through distancing behaviours helps volunteers to maintain their effort level and continue volunteering but comes at a cost to performance, as goal orientation may be reduced or accuracy may be sacrificed (Hockey, 1997). The impact of volunteer job demands on the experience of burnout may therefore have a profound impact upon the ways in which specials conduct themselves during their duties. One possible outcome is the development of impersonal attitudes towards the recipients of the service provided, in this case members of the public, characterised by the depersonalisation component of burnout.

8.2.4 Reciprocity

The Special Constabulary is said to represent an important theoretical link between the police and the public (Whitaker, 1979). It is argued that police accountability can be enhanced if citizens are provided with access to the inner workings of the police (Gill and Mawby, 1990a; 1990b). Underpinning this notion is the understanding that citizen

involvement in police work, “can feed back positive understandings of police operational constraints… generating wider public sympathy and closer links with the police” (Leon, 1991: 713). To this extent it has been suggested that specials should be used in high-level, non-confrontational contact with the public to ensure that they present a favourable image of the police (Mirrlees-Black and Byron, 1994). Until now, no previous empirical research had been able to demonstrate how this theoretical link might function, or what impact police work might have on the relationship between Special Constabulary volunteers and the public.

This thesis identified that the lack of perceived reciprocity between specials and members of the public had a significant positive effect on the onset of burnout and in particular disengagement. This finding was consistent with Kop et al. (1999) who examined the same concepts within Dutch police officers and highlights the potential impact of police work on the relationships between volunteers and members of the public. As with job demands, the lack of reciprocity positively predicted disengagement from volunteering. This suggests that whilst specials may perceive a degree of inequity between their investment in police work and the return they receive from members of the public, this also leads to the development of distancing behaviours and impersonal attitudes towards civilians.

Officers experiencing burnout are likely to reduce the level of investment they make towards client relations (Schaufeli and Enzmann, 1998), suggesting a downward spiral of inequity and distancing. Therefore the experience burnout and reduced reciprocity may have profound implications for the ways in which specials interact with members of the public over the course of their duties. Previous research has demonstrated that the experience of burnout increases favourable perceptions towards the use of force and the actual use of force in the line of duty (Kop et al. 1999; Burke and Mikkelsen, 2005). Whilst such concerns may be minimal within the Special Constabulary, because of the non-confrontational roles they are usually placed in, its relevance increases

when it is recognised that over half of the officers surveyed in this study intended to make an application to the regulars in the future. Therefore, long term exposure to the demands of police work whilst volunteering may have profound implications for the future health of not only individual volunteers, but also the Special Constabulary and police force.

Police work entails the enforcement of a framework of social control designed to regulate behaviour (Faulkner, 2001). This places police officers and special constables into a unique position in which they act as brokers mediating between the state and society (Brewer et al. 1988). Citizen's perceptions of their contacts with officers are important because they can influence the general level of public confidence and trust in the police. Public confidence and trust have been at the centre of recent policy debates within policing (Bradford et al. 2009) and are important issues because of the positive impact they can have on levels of cooperation with and respect of the police, as well as the compliance with the law (Hough et al. 2010). Although US-based research (Skogan, 2006) appears to suggest an asymmetrical relationship between contact and public confidence (i.e. any contact with police leads to negative perceptions), UK studies appear to suggest that positive contacts can improve perceptions of the police (Bradford et al. 2009). For instance, it has been demonstrated trust and public confidence in the police can be improved when members of the public perceive that they have been treated fairly (Fitzgerald et al. 2002; Jackson and Sunshine, 2006).

Whilst this thesis does not directly address issues such as the use of force by officers, or public confidence and trust in the police, it is important to recognise these issues in relation to Special Constabulary volunteerism. Volunteers who experience disengagement and reduced reciprocity may develop attitudes that impact on their ability to identify with the communities they serve, damaging the relationship between the Special Constabulary and the public. Simply having more resource, in terms of a greater number of volunteers, may not equal better police performance. Police

volunteers require supervision, management and training and this diverts resources away from other activities (Ayling, 2007). The experience of reduced reciprocity and burnout within the police may therefore create further demands for police management. The findings concerning the impact of job demands and reduced reciprocity on volunteer well-being highlight the importance of such issues when developing strategies to not only to recruit, but also retain volunteers.

8.2.5 Organisational connectedness in the Special Constabulary

This thesis is the first to examine the theory of connectedness in a non-Australian voluntary sector and policing context. The theory of connectedness is a relatively new concept that highlights the importance of belonging and acceptance in social relationships within volunteerism. Despite being developed for use within volunteer contexts (Huynh et al. 2012b), support for the four-factor structure of organisational connectedness could not be supported in the Special Constabulary.

The exclusion of task connectedness (Chapter 4) may signify the complexity of Special Constabulary volunteerism and the challenges around developing parsimonious scale capable of capturing they ways in which volunteers feel connected to the work they are given. Work within the Special Constabulary is tasked to volunteers within a command and control system. Unlike other volunteer contexts, where individuals may be given simple jobs to complete, Special Constabulary volunteerism incorporates a vast variety of tasks from desk-based roles (e.g. completing paper work) to work that may be emotionally or physically demanding (e.g. patrol work or helping victims). The work therefore varies in terms of the cognitive, emotional and physical demands placed on volunteers and this may have been responsible for the lack of discriminant validity found in the measurement model when task connectedness was included in the CFA.

Whilst the underlying structural relationship between the different components of connectedness reported here differed from those found in other volunteer contexts,

there was also evidence to suggest that the overall level of connectedness was lower. Table 8.1 outlines the mean scores reported in the existing published work examining organisational connectedness. The profile of connectedness most similar to the Special Constabulary dataset was study 1 reported by Huynh et al. (2012b), which included volunteer ambulance drivers. Although these two studies vary in terms of their contexts, it may be that volunteer emergency service work is associated with a particular pattern of connectedness. Similarly, Huynh et al.'s (2012b) second study examined connectedness within state emergency service volunteers who also work within command and control organisations. The relatively lower connectedness scores reported in this research, as well as Huynh et al. (2012b), suggest a potential difference in terms of the functioning of this construct within command and control organisations.

Table 8.1: Comparison of connectedness mean scores

Connectedness component	Special Constabulary	Huynh et al. (2012a)	Huynh et al. (2012b)		Huynh et al. (2012c)
			Study 1	Study 2	
Other worker	5.41	N/A	6.08	5.99	6.24
Value	4.89	6.03	5.77	5.55	6.21
Recipient	6.32	6.00	6.23	5.81	6.15

8.2.6: The motivational pathway

This thesis provides a first examination of the underling psychological factors associated with volunteer motivation within the Special Constabulary. Overall, the PROCESS analysis found strong support for the motivational nature of job characteristics within the Special Constabulary (Chapter 6), as significant indirect effects were observed between job resources and each of the four outcomes through connectedness. However, different components of connectedness were responsible for these indirect effects and this was dependent on the outcome being assessed. Therefore, unlike previous studies that have looked at the overall indirect effect of job

resources on outcomes through connectedness, this research highlights the need to consider these independently.

The RWA analysis indicated that job resources and connectedness predicted more criterion or outcome variance when satisfaction was the dependent variable (50%-44%). As found within the health impairment process, the models predicted the least amount of variance within the determination to continue (17%-15%). Although the indirect effect of resources on outcomes was significant at the 99% level for all but one of the resources (perceived organisational support) the RWA analysis revealed a highly varied pattern of findings, which were dependent upon the outcome assessed. For this reason, the theoretical implications of volunteer job resources are discussed by the outcomes that they most strongly predicted.

8.2.7 Job resources and motivation

Determination to continue: Perceived organisational support (32%), on-the-job learning (23%) and the provision of challenging assignments (22%) predicted the most amount of variance within the determination to continue. With the exception of perceived organisational support (recipient), the path through value connectedness was responsible for the significance of the indirect effects found. These results appear to support the original premise of the motivational pathway of the JD-R model, highlighting the importance of variables that support growth, learning and development (Bakker and Schaufeli, 2004). A perception that the Special Constabulary is supportive of its volunteers may improve retention because it promotes equity between investment in the role and the perception of the outcomes received.

For instance, the ways in which volunteers construct and view the reciprocal exchange agreements between themselves and the voluntary organisations within which they provide their time provides an important window through which volunteer retention can be understood (Farmer and Fedor, 1999). Although these psychological contracts

(Rousseau, 1989) are non-tangible and unwritten, they establish the basic level of expectation that volunteers use to judge the level of reciprocity between their investments and the behaviour of their organisation towards them. This suggests that volunteers hold a specific set of expectations and react accordingly when they feel that that these are not being met. Supporting this, Farmer and Fedor (1999) found evidence to suggest that organisational support has an important impact on withdrawal intentions. This suggests that volunteers who feel they have been fairly treated by the organisation will fulfil the obligations they perceived that they have towards it (Wayne et al. 1997). Therefore the general provision of support is one means through which the Special Constabulary can communicate that it values the contributions of specials and has concern about their well-being (Boezeman and Ellemers, 2008). The significance of the path through recipient connectedness when estimating the indirect effect of organisational support is perhaps an indication that when volunteers feel sufficiently supported the Special Constabulary they are also able to build stronger relationships with the people they help, developing a stronger sense of compassion for and obligation towards recipients. This may help to offset the impact of burnout and reduced reciprocity found in the health impairment process. These findings underline the importance of providing a supportive environment within the Special Constabulary.

The importance of on-the-job learning and challenging assignments highlights the precedence that volunteers place upon the development of human capital through their unpaid work. From the perspective of self-determination theory (Ryan and Deci 2000), on-the-job learning and challenging assignments help to foster enhanced competence, which in turn boosts intrinsic motivation. Supporting this, Haivas et al. (2013) demonstrated how the satisfaction of competency needs improved volunteer retention through work engagement. This research expands on these findings by demonstrating two important ways by which volunteers may be able to enhance feelings of

competence. Importantly, these findings demonstrate how job challenge is motivational within a volunteer context.

Whilst both challenging assignments and on-the-job learning predicted retention it is likely that these two variables are related. As found in paid work (Preenen et al. 2011), additional analysis (Appendix C) confirmed that the effect of challenging assignments on volunteer retention was not independent of its effect through on-the-job learning. This suggests more complex processes associated with volunteer work and learning than those proposed in the JD-R model. Whilst challenging assignments foster personal growth (DeRue and Wellman, 2009), it is because of the opportunity for on-the-job learning and the application of newly acquired knowledge (Aragón-Sánchez et al. 2003) that retention is enhanced. Consequently, despite the demands associated with police work, specials are motivated by the exposure to challenging work because it provides them with opportunities to learn. This represents a unique contribution to the voluntary sector literature base, suggesting that volunteers will seek out opportunities to develop their human capital even in contexts where the work may be emotionally or physically demanding. As understood by functionalism, it may also improve our knowledge of the ways in which volunteers satisfy their motives, particularly with respect to the career motive (Lo Presti, 2013). The satisfaction of motives has been linked to enhanced satisfaction and retention in volunteers (Stukas et al. 2009) however, the theory is weak in demonstrating how volunteers achieve this. These findings suggest that challenging assignments are motivating and have a positive effect on retention because they provide opportunities to develop knowledge and skills.

Despite this, it is important to recognise that the Special Constabulary may represent a relatively unique form of volunteering driven by a strong desire to join the regular service. With the exception of the Territorial Army (TA) and the retained fire service, which unlike the Special Constabulary both provide financial reimbursement, there are perhaps few voluntary roles that provide such direct experience of and potential

progress into skilled paid work. For instance, it is perhaps unlikely that volunteers working in disaster relief work would wish be exposed as regularly as specials might be to challenging work. Whilst risk is an obvious factor related to such volunteering (Britton, 1991), untrained and unsupported volunteers can experience burnout (Sharon, 2004). Therefore it is likely that the motivational nature of job challenge within the Special Constabulary depends on the presence of other resources. For instance, the psychological effects of higher risk volunteering, such as disaster relief, are likely to be more substantial for volunteers who have not received proper training for their roles (Dyregrov et al. 1996). Similarly, the potential for excitement associated with challenging work within the Special Constabulary (e.g. responding rapidly to emergencies) may be intrinsically different from job challenge in non-emergency service work. Further research is therefore required to understand the relevance of job challenge and on-the-job learning within other voluntary sector environments.

Affective commitment: This research indicates that the emotional identification and involvement that volunteers feel towards the Special Constabulary is most influenced the provision organisational support (18%), social support from regular officers (10%) and the provision of performance feedback (10%). These variables were found to have a significant indirect effect on affective commitment through both other worker and value connectedness.

Connectedness is theorised to represent a sense of community and organisational identification whilst volunteering (Huynh et al. 2012b). Therefore volunteers who perceive that they are supported by the organisation, receive social support from paid staff and who are provided with performance feedback experience a higher level of emotional attachment, identification and involvement with the Special Constabulary. Perceived organisational support is important because it helps to foster a sense of obligation towards the organisation and its objectives (Rhoades and Eisenberger, 2002). The concern shown by the Special Constabulary therefore encourages

individuals to incorporate organisational identity and role status into their social identities, on the understanding that their investment of time will be recognised and rewarded (Rhoades and Eisenberger, 2002). A lack of organisational support has been recognised as an important source of stress within the police (Anshel, 2000), therefore the provision of organisational support is an important means through which the Special Constabulary can enhance the emotional identification and involvement of volunteers.

The importance of regular support highlights the value that volunteers place on their interactions with paid officers. In light of the reported resistance of regular officers towards special constables (Mirrlees-Black and Byron, 1994; Netting, 2004), receiving social support from regular officers possibly helps specials to feel more involved within the police, enhancing the level of emotional identification and involvement within the Special Constabulary. As demonstrated in other forms of emergency service work (Holgate and Di Pietro, 2007), including volunteer work (Tuckey and Howard, 2011), the sense of camaraderie developed within the emergency services is an importance aspect of the work. Camaraderie is built upon feelings of belonging, shared identity, strong positive bonds and a sense of reciprocity (Tuckey and Howard, 2011). This research reveals that provision of social support from regular officers influences affective commitment through both other worker and value connectedness. This suggests that the provision of social support from regular officers helps to build feelings of appreciation and respect between volunteers and paid staff which may be characteristic of a sense of camaraderie. The fact that regular officer support predicted more criterion variance than other forms of social support highlights the high regard in which specials hold regular officers and the value they place on their support. This indicates the importance of ensuring that paid staff take the time to support volunteers. The provision of both social support and feedback are recognised in other police research as important means through which police organisations can improve the

emotional functioning and therefore the performance of paid police officers (Brewer et al. 1994).

The provision of feedback from others enables efficient working as it improves communication between employees (Bakker at el. 2005). It also helps to lessen the effects of demands such as inter-role conflict between volunteering and home-life, as it helps reduce the level of worry about work felt whilst away from the job (Bakker et al. 2005). Therefore, specials who are provided with feedback may be less worried about their role performance and progression whilst away from volunteering. The provision of feedback also helps to reinforce perceived levels of competency (Anshel, 2000), which may be important to motivation (Ryan and Deci, 2000). Previously, the importance of feedback had only been demonstrated with respect to volunteer job satisfaction (Huynh et al. 2012a). This thesis provides evidence to suggest that the provision of feedback increases the emotional attachment that volunteers feel towards the Special Constabulary.

Normative commitment: Levels of normative commitment were most influenced by the provision of perceived organisational support (30%), access to training (15%) and feedback (13%). Normative commitment is important because it helps specials to identify with the objectives of the Special Constabulary, in turn prompting volunteers to absorb their role as a special into their social identity. Through this process it seems volunteers develop a sense of responsibility to remain within the Special Constabulary that extends beyond their own motives to keep volunteering. This includes a sense of obligation towards not only the organisation but also the individuals within it.

The relative importance of organisational support towards levels of normative commitment is perhaps unexpected given the nature of the two variables. By demonstrating a concern for their well-being, the Special Constabulary is able increase the level of obligation felt towards it by volunteers. The importance of the perceived access to training in influencing levels of normative commitment is also consistent with

other research of paid workers (Bartlett and Kang, 2004). Bartlett and Kang (2004) found that increasing the perceived access to training was more productive in fostering organisational commitment than simply requiring individuals to attend a number of predetermined training events. This is perhaps because normative commitment was related to the motivation to learn (Bartlett and Kang, 2004). The relative importance of perceived access to training in predicting levels of normative commitment appears to underline this finding. However, this study identifies that it is through increases in value connectedness that volunteers experience a greater sense of normative commitment. Therefore, the perceived access to training helps specials to identify with and feel valued by the organisation, which in turn may help them feel more part of the organisation.

Similarly, the links between normative commitment and the motivation to learn may also explain the relative importance of performance feedback when predicting this outcome. Whilst performance feedback helps to improve communications between individuals (Bakker et al. 2005), it may also help to increase perceptions of competency (Anshel, 2000). By providing volunteers with feedback, the Special Constabulary can highlight the progress made by volunteers and the positive contributions they have made during the course of their volunteering. Therefore, highlighting the achievements of volunteers may help to reinforce perceptions competency, which in turn strengthens the sense of obligation the volunteer feels towards the organisation.

The concepts of affective and normative commitment are seldom addressed within volunteer research and had previously not been examined through the theoretical lens of the JD-R model in a volunteer context. Whilst Boezeman and Ellemers (2007) were the first to demonstrate the conditions under which affective and normative commitment influence behavioural outcomes, this study contributes to knowledge by identifying the different antecedents of each concept and their differential relationships with outcomes through connectedness.

Volunteer job satisfaction: The analysis in Chapter 6 indicated that job resources and connectedness explain more variance within volunteer job satisfaction than in any of the other outcomes. This is perhaps unsurprising, as each resource represents an aspect of an individual's role, whilst commitment and the determination to continue reflect general perceptions about volunteering that consider the broader relationship between an individual and their work.

The results highlight the importance of training-related variables in predicting satisfaction. As such the perceived access to training (31%), on-the-job learning (28%) and, to a lesser extent challenging assignments (16%), all explained a relatively high proportion of the variance compared to the other resources. The importance of the training related variables within the Special Constabulary is supported by previous research suggesting that 80% of specials would like additional training (NPIA, 2010a). Such resources are likely to be functionally beneficial to volunteers who are motivated to join the regulars, as training helps develop competency towards the standards expected of regular officers and challenging work provides opportunities to demonstrate this competency. Therefore such variables are likely to be important to the fulfilment of functionally beneficial motives, which are known to predict both organisational satisfaction and the duration of service provided by volunteers (Omoto and Snyder, 1995; Stukas et al. 2009).

In terms of satisfaction, variables aligned to the conduct of the job predicted more criterion variance than variables such as social support. This agrees with previous research suggesting that such variables are more important in unpaid work when they help to improve volunteer efficacy (Maslanka, 1996). Whilst this study provides the first evidence to suggest that external sources of social support (e.g. family support) are relevant to retention, commitment and satisfaction, the relative importance of this was considerably lower than for other sources. This may be explained by the fact that those who require support, or more greatly value social support, may be those who are less

able to adapt to the demands of police work and may therefore be less satisfied in their roles. Similar conclusions regarding social support have been drawn in previous research (Omoto and Snyder, 1995; Maslanka, 1996). Alternatively, as suggested by Snyder et al. (1999), social networks may serve as a sanctioning body against less socially desirable activities. If a volunteers' social networks are less supportive of cooperation with the police, perhaps because of a fear that any wrong doing will be reported, they may discourage such volunteering. Although external social support positively predicted each outcome, its relative importance was considerably less than that of volunteering-based support sources.

Overall, the findings concerning the motivational processes within the Special Constabulary highlight the differential relationship between the various job resources and outcomes. Organisational support, job challenge, on-the-job learning and access to training are most relevant when predicting retention and volunteer job satisfaction. However, when looking to influence levels of organisational commitment, organisational support, support from paid members of staff, performance feedback and access to training are most relevant. This suggests that volunteer coordinators within the Special Constabulary need to consider a wide range of potential resources when seeking to increase participation.

8.2.8 Cross-processes

This thesis also examined for cross-processes within the JD-R model, to determine whether demands had a demotivating effect or whether resources could lessen the effects of burnout on outcomes. Evidence cross-processes has been established within studies of paid workers (Schaufeli and Bakker, 2004; Bakker et al. 2004), whilst Cox et al. (2010) provided evidence that resources may lessen the effects of emotional exhaustion and depersonalisation on outcomes such as depression and organisational satisfaction. Importantly however, whilst previous research has found evidence of cross-processes linking job resources to organisational satisfaction through reduced

depersonalisation (Cox et al. 2010), this study indicates that similar relationships may also be present when considering other outcomes such as the determination to continue as a volunteer and organisational commitment. The findings reported in this thesis confirm previous work concerning the positive indirect cross-process relationships between volunteer job resources and outcomes through burnout (Cox et al. 2010). However, this study also provides first evidence of the detrimental effect that volunteer job demands can have on outcomes through reduced motivation (connectedness). Overall, evidence of cross-processes within the Special Constabulary highlights the complex relationships between job characteristics, burnout, connectedness and outcomes, indicating the importance of testing for such relationships.

8.2.9 Causal and reverse causal relationships

Whilst this study provides the first empirical support for the impact of the health impairment and motivational processes of the JD-R model within a UK and police volunteer context, it also makes another important contribution in testing for causal and reverse causal/reciprocal effects. The use of longitudinal data provided the opportunity to test the direction of causality between burnout and connectedness and the outcome variables for the first time within a volunteer context. It also provided the ability to control for third factors that might influence the relationships between these variables (Boyd et al. 2011), helping to reduce the impact of common method variance found in purely cross-sectional research (Podsakoff et al. 2003).

Results concerning the health impairment process indicated a causal relationship between disengagement and satisfaction. With respect to connectedness, other worker and value connectedness were found to have causal relationships with satisfaction and normative commitment respectively. This research also provides the first evidence of reciprocal relationships within the motivational processes of volunteering. Here other worker connectedness (T1) predicted satisfaction (T2), whilst initial levels of

satisfaction influenced the latter perception of other worker connectedness. Once again these findings may lend credence to the importance of camaraderie within emergency service work that serves as an on-going motivational stimulus. The positive effect of camaraderie, defined as mutual support and cooperation, has been found to help officers cope with work related stress (McCarty et al. 2007). Jaramillo et al. (2005) suggest that camaraderie improves organisational commitment because it fosters trust in the working relationships between officers. Similarly, Tuckey and Howard (2011) found that camaraderie acted as an important resource helping to offset the impact of emotional demands on psychological health. Furthermore, volunteers may be attracted to emergency service organisations because of the sense of camaraderie associated with the work (McLennan and Birch, 2008). Although it was not possible to include job characteristics into the second wave on this study, evidence of a reciprocal relationship between other worker connectedness and volunteer job satisfaction highlights the importance of promoting resources that foster this form of connectedness. For instance the provision of challenging work and on-the-job learning both had a positive influence on satisfaction through other worker connectedness.

One unanticipated finding was the reversed causal relationship between initial levels of affective commitment and the latter experience of burnout. Here initial levels of affective commitment reduced the experience of both exhaustion and disengagement. The finding appears to suggest that the level emotional attachment felt towards the Special Constabulary can serve as a protective mechanism against future perceptions of burnout.

Despite evidence of causal and reverse causal/reciprocal relationships within the Special Constabulary, none of the relationships with the determination to continue were significant. Whilst this may suggest that an individual's determination to continue is more resilient to changes over time, there are several other reasons as to why more causal relationships were not identified. For instance, the statistical procedures used to

examine for such relationships were relatively conservative. Consequently, it is with a high degree of confidence that a claim of causality between disengagement and satisfaction can be made. Another possible factor could be that the time six-month lag was not correctly calibrated to correspond with any true underlying effect between the variables (Greenberg, 2008). Compared to other longitudinal JD-R research the 6-month time lag used here was relatively short. For instance Boyd et al. (2011) found that resources positively predicted organisational commitment over a one-year period, whilst Mauno et al. (2007) reported that work engagement appeared to remain relatively stable over a two-year period. With reference to the current research, it may be that whilst volunteer job satisfaction is more susceptible to short term fluctuations and is more influenced by the work environment, constructs such as the determination to continue and commitment are more stable and less sensitive to changes in the work environment. Consequently, had a longer time lag been used more significant paths might have been identified.

There was however evidence that the well-being of volunteers had deteriorated during the 6-month time lag. Disengagement scores between T1 and T2 were significantly higher, whilst overall levels of volunteer job satisfaction had decreased. The theoretical implications of this suggest that short-term fluctuations in burnout influence levels of volunteer job satisfaction but not levels of organisational commitment or the determination to continue, which may be more stable. Empirical support for such a perspective is provided by the three-stage model of volunteer service duration. Chacón et al. (2007) found that whilst motive satisfaction was more closely related to duration of service in the earlier stages of volunteering (6 months), organisational commitment (1 year) and later the development of a volunteer role identify (2 years) predicted duration of service. If levels of determination and commitment remain more stable over time, or the effect of job characteristics is weaker on these constructs, then even less conservative statistical tests may still fail to identify any causal or reverse causal

effects. For instance, Zapf et al. (1996) suggest that if the overall effects between variables are not high then any problems associated with the empirical design of the research (e.g. lag time) may contribute to the failure to detect causal relationships.

8.2.10 ESIBS

One of the unique contributions of this thesis towards the voluntary sector and policing literature bases was the examination of specific duty and activity types in relation to volunteer well-being, job satisfaction, commitment and retention. Importantly here, this study combines ratings on volunteer-work related variables with self-report volunteer data taken over the previous 12-months of service. Therefore this research provides insights into the relationship between different types of volunteer work and outcomes, such as satisfaction and the determination to continue, at a level not previously possible. Although only a handful of correlations were significant the results of the correlation analysis are consistent with what might be expected from the limited literature on Special Constabulary volunteerism.

For instance, specials who spent more of their time working on neighbourhood policing-based duties were less determined to continue as a volunteer. Neighbourhood policing duties were also associated with lower perceptions of access to training. Alternatively, those who worked on more reactive police work duties had higher levels of job satisfaction. This broadly aligns with other Special Constabulary research suggesting that certain duties are perceived as being less meaningful or interesting (Gaston and Alexander, 2001; NPIA, 2010a). As both Special Constabularies participating in this research operate deployment strategies under which volunteers work primarily on neighbourhood-based policing work the findings concerning the impact of different duties are significant.

The theoretical impact of duty type on outcomes such as satisfaction and determination to continue may be understood through micro-economic explanations of volunteerism

(Hustinx et al. 2010). For instance, investment-based approaches identify how volunteers enter in an exchange situation whereby the provision of time is remunerated through training and skill enhancement that contributes towards the development of human (e.g. qualifications) and social (e.g. social networks) capital (Handy and Mook, 2011). Under this explanation volunteers may deem more routine neighbourhood policing-based duties as less desirable because they are the duty types that are less likely to develop human capital. This is exemplified by the negative relationships found between neighbourhood policing, perceived access to training and the determination to continue. As rational actors, volunteers assess the opportunity cost of their involvement and reduce or cease participation when this becomes too high (Lee and Brudney, 2009). The opportunity cost associated with lower-risk routine work in the Special Constabulary may therefore be higher than that of higher risk volunteer activities. Whilst specials are likely to be attracted to response policing because of the excitement it provides, it is clear that specials must feel that their time is used productively if they are to remain determined to continue within the Special Constabulary.

Analysis of the ESIBS data also identified that participation in training related duties was associated with lower levels of disengagement. This finding highlights the important role the Special Constabulary can play in influencing the well-being of its volunteers. In light of the prevalence of disengagement found within the health impairment process, providing volunteers with additional training may have benefits beyond improving the functioning of specials in their volunteer roles. Overall, the ESIBS data analysis builds upon our understanding of impact of volunteer work on individual level well-being. It confirms relationships between different duty types and outcomes such as satisfaction, whilst at the same time highlighting one possible way in which the Special Constabulary may be able to offset one of the major influencing factors of the health impairment process.

8.7 Methodological contributions

Positive response bias and low response rates to surveys are often methodological concerns prominent in voluntary sector research (Wilson, 2012). For instance, Wilson (2000) suggests that volunteers may engage in 'reciprocity talk' when responding to questions about the level of enjoyment they receive from their voluntary work. According to social exchange theory, volunteers may respond to questions in a manner that appropriately balances the relationship between their involvement and enjoyment or satisfaction (Wuthnow, 1991). This concern would therefore suggest that volunteers might answer less truthfully questions about the negative influences of their work (e.g. burnout), or overestimate the perceived benefits (e.g. connectedness, satisfaction). The fact that significant indirect relationships were found in both the health impairment and motivational processes, whilst overall levels of burnout increased and levels of satisfaction decreased between T1 and T2 suggests that this may be less of a concern in this research.

One of the important methodological contributions of this research to the current voluntary sector literature was the method by which the survey tool was delivered to respondents and the response rate this generated. Compared to other voluntary sector research examining volunteer retention and health and well-being, a response rate of 46% at T1 and 55% at T2 is encouraging. For instance the longitudinal study by Huynh et al. (2013) achieved response rates of T1=31% and T2=36%, whilst Greenslade and White (2005) achieved 37% at T1 and 21% at T2 (see Chapter 7). One of the contributing factors associated with this response rate was the choice of method used to deliver the survey instrument. This research made use of ESBIS, an online communications and workforce management tool accessible to all specials across both forces. Volunteers were expected to use ESIBS to arrange their duties as well as to record their activities whilst volunteering. Therefore engagement with the ESIBS system was more frequent than with other communications such as police force email,

which is only accessible via a force computer on police premises. Therefore, one of the important benefits of ESIBS is that it is available to specials away from police premises, meaning that specials could complete the online survey in private their own time. Internet-based survey research is now regarded as both an acceptable and appropriate method of quantitative data collection within the voluntary sector. This method is less costly and invasive than in-person interviewing and addresses issues over the decline in telephone landline usage and a growing reluctance of individuals to be contacted over the phone (Cnaan et al. 2010). Internet-based survey research also affords anonymity to respondents, who may therefore provide more truthful and candid responses to survey items and free text questions. This may help further minimise the impact of positive response bias identified above. One further benefit of the ESIBS system was that, with the consent of the volunteers, it enabled access to workforce management data concerning types of activities and duties volunteers worked on. Access to respondent level data of this nature is something that has not been previously achieved in voluntary sector research and enabled an examination of survey responses against self-reported volunteer activity data.

Another important methodological contribution of this study concerns the method used to detect mediation. Unlike previous studies that have used structural equation methods (SEM) this research implemented the PROCESS macro, enabling the quantification of the total and specific indirect effects of interest (Hayes, 2013). This is the first time that the theoretical propositions of the JD-R model have been examined using such a technique, providing important information as to the indirect effect of each independent variable. For instance, this study is the first to provide a detailed appraisal of the indirect effect of job characteristics on outcomes through each of the components of burnout and connectedness. The use of PROCESS, rather than SEM, to detect mediation also negates the need to use techniques such as item parcelling to represent multi-dimensional constructs such as burnout and engagement. The use of

parcelling is not recommended for such concepts as it can lead to situations in which acceptable fit indices are found for miss-specified factor solutions, potentially biasing the estimates of structural parameters (Bandalos, 2002). Furthermore, by making use of the bootstrapping capabilities provided within PROCESS, this research avoided the limitations associated with other approaches (e.g. the Sobel test) concerning underpowered significance testing (MacKinnon et al. 2004).

8.8. Contributions to practice

The findings of this research have been instrumental in helping the Special Constabularies participating in this research to establish their progress towards the Association of Chief Police Officers (ACPO) Special Constabulary National Strategy (2011-16). Interim results were provided to volunteer administrators after the second stage of data collection was completed in order to help each force evaluate their progress. In particular, the items contained within this survey mapped directly onto a number of the Key Performance Questions (KPQs) included in the National Strategy. This included questions on the development of skills and knowledge within the SC (KPQ4), innovation and continuous improvement (KPQ6) and the leadership of regular officers over the SC (KPQ7b). Each of these areas was an aspect of the strategy that ACPO had identified some degree of problem in delivering at the national level.

Understanding the impact of job characteristics on the health impairment and motivational processes of the JD-R model has various implications for practice. This research is more relevant to organisations interested in retention than studies focussing on factors such subjective dispositions, because it provides information of organisational and managerial-type factors that can be influenced by the organisation. These factors were selected because police-focussed empirical research had suggested they were more frequently and severely experienced by officers (Brown and Campbell, 1990; Biggam et al. 1997; Kop et al. 1999 Collins and Gibbs, 2003; Shane, 2010). The findings reported in this thesis are therefore of interest to volunteer

coordinators looking to develop retention strategies. Importantly, this research suggests that the factors associated with the determination to continue are likely to be different from those associated with satisfaction and retention, whilst the longitudinal data analysis suggests that it may be more difficult to influence retention over a short period of time.

The fact that burnout was significant within the health impairment process highlights the potential impact of the work on volunteer well-being. However, it also suggests that the burnout experienced in relation to police work may also have implications for the theoretical relationship between the police and the public. For instance the specific component of burnout that was significant within this study was disengagement, which is personified by the distancing behaviours directed towards both the work and the object of the work, as well as the development of impersonal and cynical attitudes (Demerouti et al. 2003; 2010). Burnout was also related to a reduction in the level of perceived reciprocity between specials and members of the public. Whilst this sense of inequity may lead to reduced retention rates, it may also result in less-satisfactory interactions between members of the public and the police, as volunteers develop impersonal attitudes towards those that they help. The relationships found between the publics' perceptions of their interactions with police officers and public confidence and trust in the police suggest that the Special Constabulary should be included in any training or support programmes that help police officers to deal with the demands of their work. As indicated in this study, volunteer training may be one effective means through which volunteer burnout may be offset. This highlights the potential ability for volunteer coordinators to address the effects of burnout.

The findings reported within this thesis suggest that police management may need to consider the long-term impact of exposure to burnout in policing, including ways to counteract its presence. Over 50% of specials surveyed in this research indicated that they intended to make a future application to the regular service. Consequently, there

may be longer-term implications for the overall health of the police if future recruitment is drawn solely from the Special Constabulary. Whilst specials will have already developed some of the skills and knowledge required of regular officers, they may also have been influenced by 'cop culture' (Reiner, 2010) and the processes associated with burnout within the police (Neiderhoffer, 1967; Van Maanen, 1975; Maslach and Jackson, 1981). Therefore, rather than bringing in new recruits, uninfluenced and unaffected by police sub-culture, with potentially new ideas about police work, the police may select officers from the Special Constabulary who best fit their own image. With a potentially less varied intake of new recruits innovation may be thwarted, new ideas less forthcoming and individuals less willing to question established ways of working. Ultimately, the risks associated with burnout in policing suggest that new recruits drawn from the Special Constabulary may already experience this syndrome. If left unaddressed, this may result in enhanced effects later in an individual's employment. Specials Constabularies might also wish to consider the membership profile of their organisation, in relation to the number of volunteers wanting to join the regular service. Any gains to headcount numbers within the Special Constabulary may be lost if volunteers are recruited into the regular service, or leave if their application is unsuccessful.

With regards to the specific job characteristics examined within this study, there are a number of notable findings of interest to practitioners. First, it has been demonstrated that volunteers respond positively to job challenge and value both formal training and on-the-job learning. This demonstrates the highly motivated nature of volunteers within the Special Constabulary and suggests that volunteer coordinators may be able to use aspects of the work to encourage favourable retention rates. This study highlights that the previously found issue of volunteer and regular officer relations remains a concern within the Special Constabulary. Whilst the Special Constabulary is not unique in reporting such issues (e.g. Netting, 2004), the positive influence of regular officer

support highlights the impact of more effective working relationships. Therefore, rather than commenting only on the negative aspects of the relationships between specials and regulars, this research draws attention to the positive ways in which these two occupational groups can assist each other. Finally, although work-based demands were more prominent, there was evidence that inter-role conflict between a volunteer's home and work lives affected their volunteering. This suggests that the Special Constabulary needs to be sensitive to the impact of external demands in volunteering and raises the profile of schemes such as employer supported policing (ESP) to garner support from employers for the volunteer activities of their staff.

8.9 Limitations of the research

As with all research, there are a number of limitations relating to the results presented in this thesis that should be acknowledged. Due to the unique organisational context examined it is uncertain the extent to which these findings are generalisable to other volunteer contexts. Although collecting survey responses across two Special Constabularies may have helped to increase the variability of the item scores, these two forces were broadly similar and drawn from a similar geographical region. Requests for participation were made to forces with different geographical profiles however, no responses to these request were received. Whilst both Special Constabularies policed predominately suburban and rural areas, it may not be applicable to transpose these findings into forces responsible for policing more densely populated urban areas.

As with all cross-sectional findings there is a risk of common method bias (Podsakoff et al. 2003). As it was not possible to obtain ratings from others (e.g. supervisors, co-volunteers or family members), this study sought to reduce the effects of common method bias through the use of longitudinal data. With no theoretical evidence available to inform the appropriate choice of lag time required to capture causal relationships, a six-month lag was chosen on the basis of practicality. Whilst fewer

significant relationships were observed in the longitudinal findings the confidence in these results is high, as future levels of independent variables and initial levels of outcome variables were controlled for within the structural models. However, it remains unknown whether a 12-month lag or longer would have been sufficiently sensitive to identify more causal relationships between burnout, connectedness and outcomes. Furthermore, because of concerns over survey length and over engagement with volunteers, job demands and resources were excluded from the T2 survey. This prevented the research from conducting a true longitudinal test of the mediated paths of the JD-R model.

There are also limitations associated with longitudinal research such as the inability to detect the unreliability of measurement indices from true change (Taris, 2008). This is always a risk within research were where any degree of scale unreliability is identified. Sampling error (Bryman, 2004) may also be a factor influencing results, particularly with respect to burnout, as those who responded to T2 may be those more engaged and positive about their volunteer work. Those experiencing burnout may have left the Special Constabulary or, because of the distancing evoked by the disengagement, have been less willing to participate in the second wave of the survey. Unfortunately, it was not possible to identify those who had left the Special Constabulary from those who did not wish to respond. Further research should therefore attempt to measure the burnout levels of current and former specials, including those who have been recruited into the ranks of the regular police service.

One of the challenges associated with the current research was the lack of volunteer-developed measurement indicators to represent the constructs of interest. Whilst it is becoming increasingly common for voluntary sector research to use measurement indices developed in paid work, it is vital to ensure construct validity before testing for relationships between variables. The analysis presented in Chapter 4 demonstrated how it was necessary to modify both the OLBI and 4DCS to achieve discriminant

validity. These issues highlight the challenges associated with the use of measurement indices, whether developed in paid work or volunteer contexts, withinmore unique organisational contexts such as the Special Constabulary. Furthermore, in a very limited number of cases, modified scales resulted in scale reliabilities that were below the level of internal consistency typically deemed acceptable within social research. This highlights the not only the need for further volunteer-focussed research in this field, but also the need to carefully appraise any constructs developed in samples of paid workers.

Finally, because there is such little police and volunteer-based research examining issues such as burnout and connectedness, it remains unclear whether the levels reported in this study are higher or lower than in other contexts. Although comparisons were drawn to other international contexts, in the case of burnout is this was to non-volunteer policing contexts that had used a different conceptualisation of the phenomenon.

8.10 Further research

There is a need to conduct comparative studies of paid and volunteer workers to understand how their organisational experiences compare. Whilst there is growing evidence to suggest that volunteers are just as susceptible to the negative (and positive) impact of the work environment, further work should be conducted to understand whether the same processes are apparent within paid staff and volunteers working within the same organisations. For instance the inclusion of regular officers from the same police forces would make it possible to examine for differences in the underlying processes influencing variables such as job satisfaction and commitment. Furthermore, as organisational and managerial factors have been found to have more of an impact on well-being than operational issues, future studies might also include the experiences of those not involved in frontline policing such as police staff and police support volunteers. It would also be informative to examine health and well-

being within other higher-risk volunteer contexts (e.g. Territorial Army, Retained Fire Service) to establish whether volunteer burnout within the police is intrinsically different. As well as conducting further volunteer focussed research within command and control contexts it may also be informative to contrast such contexts with more traditional volunteer contexts.

As many of the scales used in this study were developed in paid work, future research could also consider including multiple burnout indices as a means to establish their convergent validity via multi-trait multi-method (MTMM) research techniques. To address the issue of common-method bias, the use of supervisor ratings for items such as well-being could also be considered. Huynh et al. (2012c) included family member ratings of volunteer job demands in their study however, the resultant scale had a poor level of internal consistency (α=.46). Consequently, further research incorporating the use of ratings from other members of staff may help improve the reliability of statistical models and provide further insights into the effects of the work environment on volunteers. In addition to this, further longitudinal research incorporating a greater number of data collection points over a longer period of time may also increase our understanding of the long-term causal and reverse causal effects of burnout and connectedness. This study suggests that causal relationships exist between burnout and satisfaction and it may be that longer-term processes impact on constructs such as the determination to continue and organisational commitment. Future research should also consider measuring the perception of volunteer job characteristics and experience of burnout within those who have left the Special Constabulary. Although behavioural intentions are known to be strong predictors of volunteer behaviour, relating levels of burnout to actual dropout rates would enable direct links to be made between job characteristics, well-being and retention.

Due to the nascent stage of research examining the impact of job characteristics on volunteers there is a need to establish the impact a wider range of demands and

resources within the JD-R model. For instance, studies have looked at both physical and emotional demands but have yet to determine whether volunteers are provided with sufficient material resources to be effective in their roles. Such concerns have been raised within the Special Constabulary concerning the level and quality of equipment volunteers are provided with (NPIA, 2010a). Similarly, personal resources such as self-efficacy (Xanthopoulou et al. 2007a; 2009a) or volunteer motivation (Lo Presti, 2012) may provide useful insights into the health impairment and motivational processes of volunteer work. Consideration of different outcomes, such as those related to health (e.g. depression) is also required. Further research might also examine alternative relationships between job characteristics well-being and outcomes. For instance this study identified that whilst exhaustion was more prevalent within the Special Constabulary, it appeared to be unrelated to outcomes such as retention. Future research could test for interaction effects, to understand whether the influence of job demands on retention, satisfaction or commitment through disengagement is moderated by exhaustion.

8.11 Conclusions

Although research pertaining to the health and well-being of volunteers is at an early stage there is now sufficient evidence to suggest that they are as equally susceptible to the impact of the work environment as paid staff. In contexts such as policing this is significant, as it is an occupation in which stress is considered unfortunate but inevitable (Hart and Cotton, 2003). This research demonstrates how the volunteer work environment impacts on the well-being and motivation of specials and the potential impact this has not only for retention, but also in terms of the relationship between the Special Constabulary and the general public. Volunteer work can be motivating, encouraging growth and personal development. It has been demonstrated that specials respond positively to job challenge and this may be used as a tool to enhance retention. Therefore whilst retention remains an issue within the Special Constabulary,

this research also suggests that Special Constabularies may be able to indirectly influence retention through alterations in the work environment.

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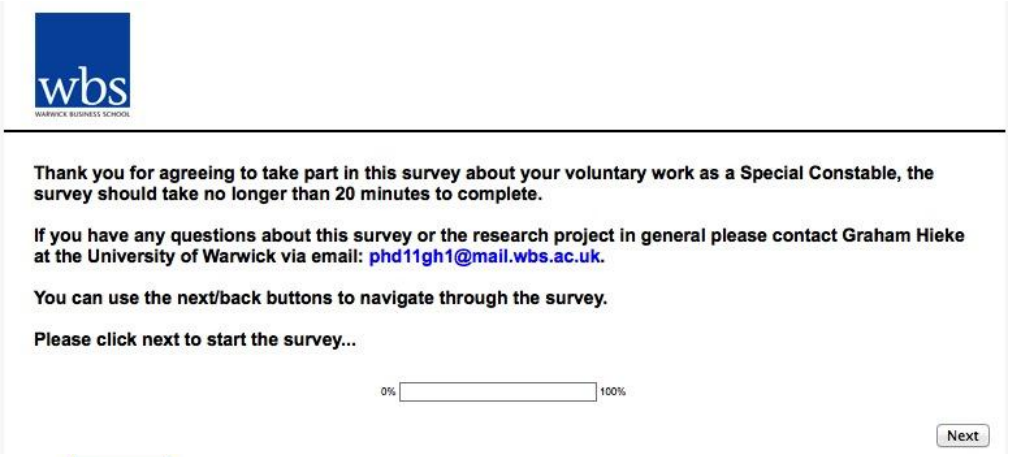
Appendix A: Online Survey



Thank you for agreeing to take part in this survey about your voluntary work as a Special Constable, the survey should take no longer than 20 minutes to complete.

If you have any questions about this survey or the research project in general please contact Graham Hieke at the University of Warwick via email: phd11gh1@mail.wbs.ac.uk.

You can use the next/back buttons to navigate through the survey.

Please click next to start the survey...

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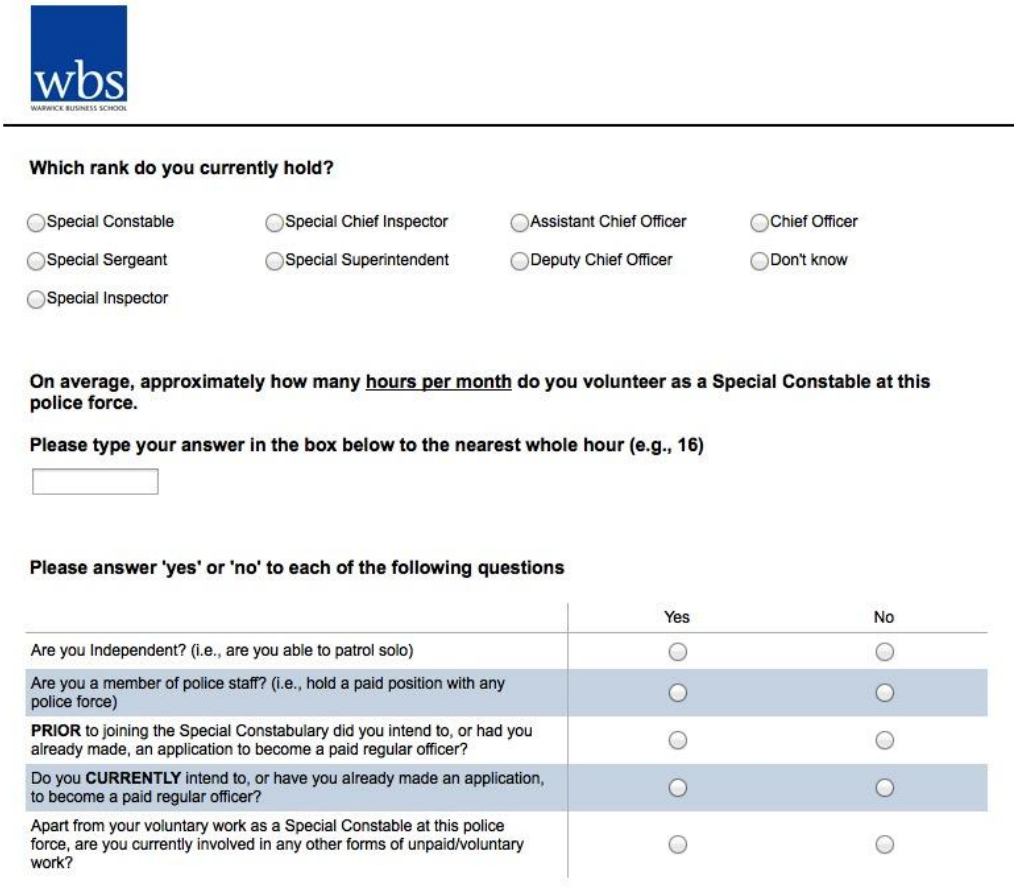
Next



Which rank do you currently hold?

- Special Constable
- Special Chief Inspector
- Assistant Chief Officer
- Chief Officer
- Special Sergeant
- Special Superintendent
- Deputy Chief Officer
- Don't know
- Special Inspector

On average, approximately how many hours per month do you volunteer as a Special Constable at this police force.

Please type your answer in the box below to the nearest whole hour (e.g., 16)

Please answer 'yes' or 'no' to each of the following questions

	Yes	No
Are you Independent? (i.e., are you able to patrol solo)	○	○
Are you a member of police staff? (i.e., hold a paid position with any police force)	○	○
PRIOR to joining the Special Constabulary did you intend to, or had you already made, an application to become a paid regular officer?	○	○
Do you **CURRENTLY** intend to, or have you already made an application, to become a paid regular officer?	○	○
Apart from your voluntary work as a Special Constable at this police force, are you currently involved in any other forms of unpaid/voluntary work?	○	○

Which of the following best reflects your current employment status

- Employed full-time
- Employed part-time
- Unemployed
- Full-time student
- Retired
- Other
- Prefer not to say
- Don't know

0% 100%

Back Next

To what extent do you agree or disagree with the following statements about on-the-job learning at your police force:

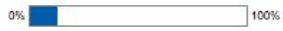
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
In my voluntary role I can develop my knowledge	○	○	○	○	○
My voluntary role demands that I constantly learn new things	○	○	○	○	○
In my voluntary role I learn a lot	○	○	○	○	○
In my voluntary role I can develop my talents and skills	○	○	○	○	○

To what extent do you agree or disagree with the following statements about the access to training at your police force:

	Strongly disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree
My force has stated policies on the amount and type of training Special Constables can expect to receive	○	○	○	○	○	○	○
This force provides access to training	○	○	○	○	○	○	○
I am aware of the amount and type of training that my force is planning for Special Constables in the next 3 months	○	○	○	○	○	○	○

To what extent do you agree or disagree with the following statements about the tasks you carry out when volunteering as a Special Constable at this police force:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
The results of my voluntary work are likely to significantly affect the lives of other people	○	○	○	○	○
This voluntary role itself is very significant and important in the broader scheme of things	○	○	○	○	○
This voluntary role has a large impact on people outside the force	○	○	○	○	○
The work performed when volunteering has a significant impact on people outside the force	○	○	○	○	○



Back Next

Each of the statements below is something that a person might say about their voluntary work.

Please indicate the extent to which you agree or disagree with the following statements about the force in which you do your voluntary work as a Special Constable:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
My force really cares about my well-being	○	○	○	○	○	○	○
If given the opportunity, my force would take advantage of me	○	○	○	○	○	○	○
Help is available from my force when I have a problem	○	○	○	○	○	○	○
My force cares about my opinions	○	○	○	○	○	○	○
My force is willing to help me if I need a special favour	○	○	○	○	○	○	○
My force strongly considers my goals and values	○	○	○	○	○	○	○
My force would forgive an honest mistake on my part	○	○	○	○	○	○	○
My force shows very little concern for me	○	○	○	○	○	○	○

The following questions are about the tasks you are asked to perform whilst volunteering. Please read each statement and indicate the extent to which you agree or disagree with each.

My voluntary work provides me with tasks...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
... in which I have to deal with new situations and changes	○	○	○	○	○
... in which I have to deal with many different people	○	○	○	○	○
... that are high in responsibility	○	○	○	○	○
... of which success and failure are clearly visible to other people	○	○	○	○	○
... that are challenging	○	○	○	○	○
... that require multiple skills	○	○	○	○	○

The following questions are about the feedback you receive from your supervisor and co-workers (i.e., paid members of staff/regular officers or other volunteers) whilst volunteering.

To what extent do you agree or disagree with the following:

	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
I receive a great deal of information from my supervisor and co-workers about my voluntary role performance	○	○	○	○	○
Other people in the force, such as supervisors and co-workers, provide information about the effectiveness (e.g., quality) of my voluntary role performance	○	○	○	○	○
I receive feedback on my performance from other people in my force (such as my supervisor and co-workers)	○	○	○	○	○

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The following questions are about your working relations with regular officers and members of the public.

To what extent do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Regular officers that I work with appreciate the efforts of Special Constables	○	○	○	○	○	○	○
There is effective cooperation between regular officers and Special Constables	○	○	○	○	○	○	○
Regular officers that I work with understand the reasons why Special Constables volunteer	○	○	○	○	○	○	○
In general, regular officers are anti-Specials	○	○	○	○	○	○	○
As a Special Constable, I put a lot of energy into dealing with members of the public, but rarely get recognition from them in return	○	○	○	○	○	○	○

The following statements relate to various things that might be expected of you in your role as a Special Constable.

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I know how I will be evaluated for a promotion	○	○	○	○	○	○	○
Explanation is clear of what has to be done	○	○	○	○	○	○	○
I know exactly what is expected of me	○	○	○	○	○	○	○
Clear, planned goals and objectives exist for my volunteer role	○	○	○	○	○	○	○
I know that I have divided up my time properly	○	○	○	○	○	○	○
I know what my responsibilities are	○	○	○	○	○	○	○
I feel certain about how much authority I have	○	○	○	○	○	○	○

The following statements relate to how accepted you feel in your role and how you feel Special Constables are accepted more generally within this police force.

To what extent do you...

	Not at all accepted	Generally not accepted	Neither unaccepted nor accepted	Generally accepted	Fully accepted
... feel ***personally*** accepted by regular officers at this force	○	○	○	○	○
... feel that Special Constables are accepted ***in general*** by regular officers at this force	○	○	○	○	○

0% 100%

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The following statements are about the support you receive from various sources regarding your voluntary work as a Special Constable.

How much does each of these people go out of their way to do things to make your volunteering life easier for you?

	Very much	Somewhat	A little	Not at all	Don't have any such person
Your immediate supervisor	○	○	○	○	○
Other volunteers that I work with	○	○	○	○	○
Other regular officers that I work with	○	○	○	○	○
Your partner/family/friends	○	○	○	○	○

How much can each of these people be relied on when things get tough volunteering?

	Very much	Somewhat	A little	Not at all	Don't have any such person
Your immediate supervisor	○	○	○	○	○
Other volunteers that I work with	○	○	○	○	○
Other regular officers that I work with	○	○	○	○	○
Your partner/family/friends	○	○	○	○	○

How easy is it to talk to each of the following people?

	Very much	Somewhat	A little	Not at all	Don't have any such person
Your immediate supervisor	○	○	○	○	○
Other volunteers that I work with	○	○	○	○	○
Other regular officers that I work with	○	○	○	○	○
Your partner/family/friends	○	○	○	○	○

How much is each of the following people willing to listen to your personal problems?

	Very much	Somewhat	A little	Not at all	Don't have any such person
Your immediate supervisor	○	○	○	○	○
Other volunteers that I work with	○	○	○	○	○
Other regular officers that I work with	○	○	○	○	○
Your partner/family/friends	○	○	○	○	○

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The following statements are about how your VOLUNTEERING at this police force affects your HOME OR FAMILY LIFE.

How much do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Due to volunteering-related duties, I have to make changes to my plans for family activities	○	○	○	○	○	○	○
Things I want to do at home do not get done because of the demands my voluntary role puts on me	○	○	○	○	○	○	○
The demands of my volunteering interfere with my home family life	○	○	○	○	○	○	○
The amount of time my voluntary role takes up makes it difficult to fulfil my family responsibilities	○	○	○	○	○	○	○
My voluntary role produces strain that makes it difficult to make changes to my plans for family activities	○	○	○	○	○	○	○

0% 100%

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The following items refer to how connected you feel with certain aspects of your voluntary work as a Special Constable at this police force.

Please indicate the extent to which you agree or disagree with the following statements:

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
I enjoy doing volunteer work	○	○	○	○	○	○	○
I am treated fairly at this force	○	○	○	○	○	○	○
I am appreciated by the people I work with	○	○	○	○	○	○	○
I feel it is my duty to help people when I have the ability to do so	○	○	○	○	○	○	○
My efforts, as a volunteer, are recognised by the force	○	○	○	○	○	○	○
I feel compassion toward people I am helping	○	○	○	○	○	○	○
It makes me feel good to help people in trouble	○	○	○	○	○	○	○
I am really good at doing the volunteer work that I do	○	○	○	○	○	○	○
I feel a sense of belonging to the people I work with in the force	○	○	○	○	○	○	○
I feel a sense of closeness to the volunteer work I do because I possess the skills required to do the work well	○	○	○	○	○	○	○
I am valued by the force	○	○	○	○	○	○	○
I feel close to the people I am helping	○	○	○	○	○	○	○
I feel respected in my role as a volunteer	○	○	○	○	○	○	○
I get on well with my peers and staff	○	○	○	○	○	○	○
The force appreciates my effort	○	○	○	○	○	○	○

Below you will find a series of statements about your voluntary work as a Special Constable with which you may agree or disagree.

Using the scale, please indicate the degree to which you agree or disagree with the following statements about your voluntary work as a Special Constable at this police force.

	Strongly Disagree	Disagree	Agree	Strongly Agree
After volunteering, I have enough energy for my leisure activities	○	○	○	○
This is the only type of voluntary work that I can imagine myself doing	○	○	○	○
Usually, I can manage the amount of my voluntary work well	○	○	○	○
I always find new and interesting aspects in my voluntary work	○	○	○	○
When I volunteer, I usually feel energised	○	○	○	○
Sometimes I feel sickened by my voluntary work tasks	○	○	○	○
After my voluntary work, I usually feel worn out and weary	○	○	○	○
After volunteering, I tend to need more time than in the past in order to relax and feel better	○	○	○	○
Lately, I tend to think less when volunteering and do my voluntary role almost mechanically	○	○	○	○
It happens more and more often that I talk about my voluntary work in a negative way	○	○	○	○
There are days when I feel tired before I arrive at my voluntary work	○	○	○	○
I can tolerate the pressure of my voluntary work very well	○	○	○	○
During my voluntary work, I often feel emotionally drained	○	○	○	○
I feel more and more engaged in my voluntary work	○	○	○	○
I find my voluntary work to be a positive challenge	○	○	○	○
Over time, one can become disconnected from this type of voluntary work	○	○	○	○

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To what extent do you agree or disagree with the following statements about the police force you volunteer for:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I would not leave my force right now because I have a sense of obligation to the people in it	○	○	○	○	○	○	○
I would feel guilty if I left my force now	○	○	○	○	○	○	○
This force deserves my loyalty	○	○	○	○	○	○	○
Even it were to my advantage, I do not feel it would be right to leave my force now	○	○	○	○	○	○	○
I do not feel any obligation to remain with my current force	○	○	○	○	○	○	○
I owe a great deal to this force	○	○	○	○	○	○	○

The following statements are about your thoughts towards leaving this police force as a Special Constable.

To what extent do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I frequently think about leaving this force	○	○	○	○	○	○	○
Other volunteers I know often think of leaving this force	○	○	○	○	○	○	○
It is likely that I will leave this force within the next six months	○	○	○	○	○	○	○
It is likely that I will leave this force within the next two years	○	○	○	○	○	○	○
It is likely that I will leave this force within the next five years	○	○	○	○	○	○	○
I am determined to continue as a volunteer at this force	○	○	○	○	○	○	○

To what extent do you agree or disagree with the following statements about the police force you volunteer for:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I do not feel a strong sense of belonging to my force	○	○	○	○	○	○	○
I do not feel "emotionally attached" to this force	○	○	○	○	○	○	○
This force has a great deal of personal meaning for me	○	○	○	○	○	○	○
I really feel as if this force's problems are my own	○	○	○	○	○	○	○
I do not feel like "part of the family" at my force	○	○	○	○	○	○	○
I would be happy to spend the rest of my time as a Special Constable at this force	○	○	○	○	○	○	○

The following statements are about your OVERALL SATISFACTION with your experience as a Special Constable at this police force.

To what extent do you agree or disagree with the following statements:

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
In general, I like my volunteer role	○	○	○	○	○	○	○
In general, I like volunteering at this force	○	○	○	○	○	○	○
Overall, I am satisfied with my volunteer role	○	○	○	○	○	○	○

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Finally, we would like to know more about you so that we can compare the experiences of different types of volunteers.

Are you:

Male ○ Female ○ Prefer not to say ○

Which age banding do you fall into:

18 to 20 ○ 21 to 30 ○ 31 to 40 ○ 41 to 50 ○ 51 to 65 ○ 66+ ○ Prefer not to say ○

And to the nearest year, how long have you been a Special Constable for IN TOTAL?

- ○ Less than 6 months
- ○ 1 year
- ○ 2 years
- ○ 3 years
- ○ 4 years
- ○ 5 years
- ○ 6 years
- ○ 7 years
- ○ 8 years
- ○ 9 years
- ○ 10 years
- ○ 11 years
- ○ 12 years
- ○ 13 years
- ○ 14 years
- ○ 15 years
- ○ 16 years
- ○ 17 years
- ○ 18 years
- ○ 19 years
- ○ 20 years or longer
- ○ Prefer not to say

What is your ethnic group?

White

- ◯ English / Welsh / Scottish / Northern Irish / British
- ◯ Irish
- ◯ Gypsy or Irish Traveller
- ◯ Any other White background

Mixed / Multiple ethnic groups

- ◯ White and Black Caribbean
- ◯ White and Black African
- ◯ White and Asian
- ◯ Any other Mixed / Multiple ethnic background

Asian / Asian British

- ◯ Indian
- ◯ Pakistani
- ◯ Bangladeshi
- ◯ Chinese
- ◯ Any other Asian background

Black / African / Caribbean / Black British

- ◯ African
- ◯ Caribbean
- ◯ Any other Black / African / Caribbean background

Arab

- ◯ Arab

Other

- ◯ Any other ethnic group
- ◯ Prefer not to say

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Which of the following best describes your status:

- ◯ Single, that is never married
- ◯ Married/Civil Partnership living with spouse/partner
- ◯ Married/Civil Partnership separated from spouse/partner
- ◯ Divorced/Civil Partnership now dissolved
- ◯ Widowed/surviving Civil Partner whose partner has since died
- ◯ Prefer not to say

Do you have any children under the age of 16 living with you:

Yes	No	Prefer not to say
◯	◯	◯

Please indicate the furthest level of education you have completed:

◯ No qualification	◯ AS/A Levels	◯ Higher degree (e.g., MSc/MA/PhD)/Postgraduate certificate/diploma
◯ O Level/GCSE/BTEC level 1 or 2/NVQ level 1 or 2	◯ Further degree/diploma (e.g., HNC/HND/NVQ level 4/BTEC Professional/Advanced Diploma)	◯ Other qualification (including overseas)
◯ Vocational qualification (e.g., BTEC level 3 /NVQ level 3)	◯ First degree (e.g., BSc/BA/graduate certificate/diploma)	◯ Prefer not to say

And thinking of the income of your household as a whole, what is the total annual income of the whole household before deductions for income tax, National Insurance etc?

◯ No income	◯ £20,000 - £24,999	◯ £50,000 - £54,999
◯ Under £2,500	◯ £25,000 - £29,999	◯ £55,000 - £74,999
◯ £2,500 - £4,999	◯ £30,000 - £34,999	◯ £75,000 - £99,999
◯ £5,000 - £9,999	◯ £35,000 - £39,999	◯ £100,000 or more
◯ £10,000 - £14,999	◯ £40,000 - £44,999	◯ Don't know
◯ £15,000 - £19,999	◯ £45,000 - £49,999	◯ Prefer not to say

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If you have any additional comments about your volunteer work as a Special Constable at this police force please write them in the space provided below:

Thank you for taking part in this survey. Your answers are important and will contribute towards furthering our understanding of the experiences of Special Constables as well as contributing towards the doctoral thesis of Graham Hieke, a PhD student at the University of Warwick.

If you have any further questions regarding this research please contact Graham Hieke via email: phd11gh1@mail.wbs.ac.uk.

Please click next to complete the survey and submit your responses.

0% 100%

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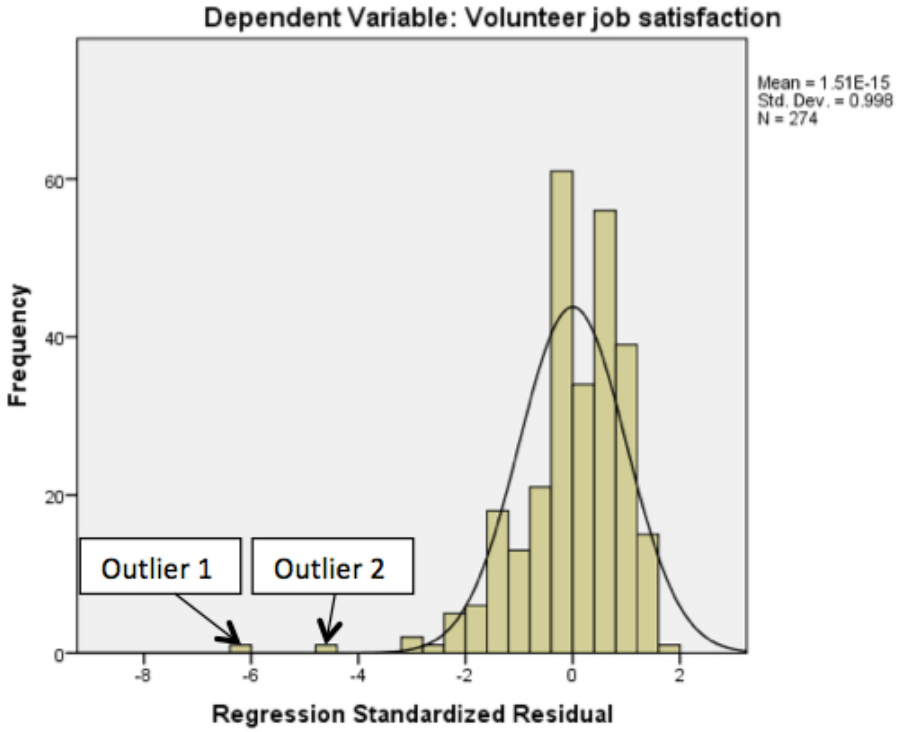
We thank you for your time spent taking this survey.
Your response has been recorded.

0% 100%

Appendix B: Regression residual analysis

Appendix B provides an example of the technique used to identify regression residuals. Two cases were identified as consistent outliers for each regression analysis including volunteer job satisfaction as the dependent variable.

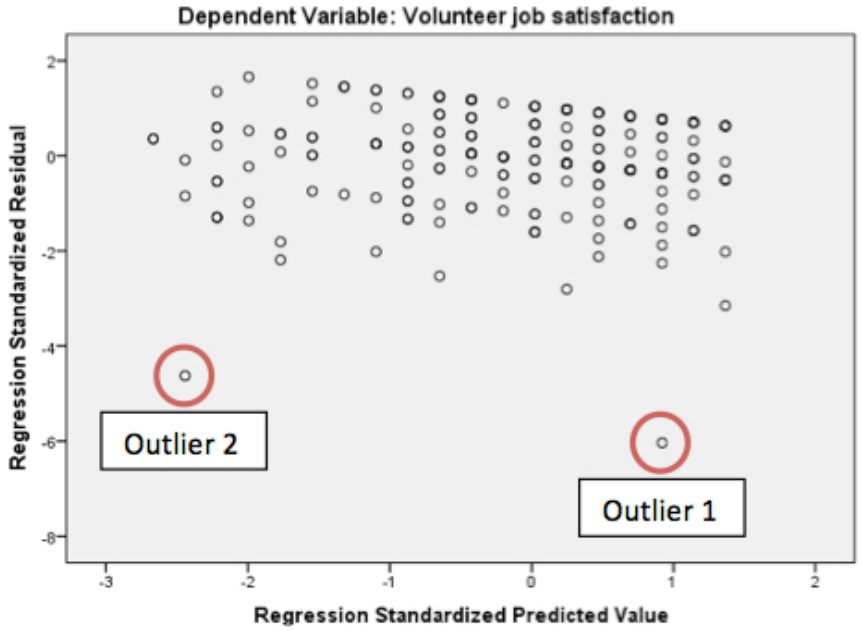
Figure B1: Histogram of regression standardised residuals (IV perceived access to training, DV volunteer job satisfaction)



The following example highlights the process adopted for identifying these two outliers the regression examining the effect of perceived access to training on volunteer job satisfaction. Figure A1 plots the standardised regression residuals in a histogram and clearly shows two cases that fall outside the normal distribution range. Casewise diagnostics report that outlier 1 has a mean score of 1.00 on the volunteer job satisfaction scale and a standardised residual value of -6.04 whilst outlier 2 has scores of 1.33 and -4.63 respectively.

The scatterplot in figure A2 plots the standardised regression residuals against the predicted standardised regression residuals and further highlights the issue of these two identical cases as outliers. Next Cook's distance values were calculated to understand whether these two cases (or any others) had any undue influence over the regressions. In this example the Cook's distance value for outlier 1 and 2 was .124 and .287 respectively. Whilst these values are below the criteria suggested by Cook and Weisberg (1982) they are extremely large in comparison the next highest value (.053) and the mean Cook's distance (.005).

Figure B2: Scatterplot of standardized regression residuals against predicted standardized regression residuals



The example reported here is representative of the findings in each of the analyses where volunteer job satisfaction was the dependent variable. Therefore on the basis of the regression residual and Cook's distance analysis for each of the regressions predicting volunteer job satisfaction these two cases were removed from the data set reducing the total sample size from n=274 to n=272.

Appendix C: Indirect effect of challenging assignments on determination

```
*************** PROCESS Procedure for SPSS Release 2.03 *****************

        Written by Andrew F. Hayes, Ph.D.   http://www.afhayes.com

**************************************************************************
Model = 4
    Y = remain
    X = chassign
    M = joblearn

Statistical Controls:
CONTROL= gender   age

Sample size
        265

**************************************************************************
Outcome: joblearn

Model Summary
          R       R-sq          F        df1        df2          p
      .5494      .3019    37.6175     3.0000   261.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    1.8843      .2804     6.7209      .0000     1.3322     2.4363
chassign     .6264      .0605    10.3461      .0000      .5072      .7456
gender      -.0915      .0708    -1.2927      .1972     -.2308      .0479
age         -.0751      .0293    -2.5596      .0110     -.1329     -.0173

**************************************************************************
Outcome: remain

Model Summary
          R       R-sq          F        df1        df2          p
      .3141      .0986     7.1126     4.0000   260.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     .0688      .9678      .0710      .9434    -1.8369     1.9744
joblearn     .5474      .1973     2.7749      .0059      .1590      .9359
chassign     .5037      .2291     2.1982      .0288      .0525      .9549
gender      -.1856      .2262     -.8204      .4128     -.6310      .2599
age          .1473      .0947     1.5555      .1210     -.0392      .3337

****************** DIRECT AND INDIRECT EFFECTS *************************

Direct effect of X on Y
     Effect         SE          t          p       LLCI       ULCI
      .5037      .2291     2.1982      .0288      .0525      .9549

Indirect effect of X on Y
            Effect    Boot SE   BootLLCI   BootULCI
joblearn     .3429      .1334      .0934      .6201

****************** ANALYSIS NOTES AND WARNINGS *************************

Number of bootstrap samples for bias corrected bootstrap confidence intervals:
     5000

Level of confidence for all confidence intervals in output:
    95.00

NOTE: Some cases were deleted due to missing data.  The number of such cases was:
  7
```